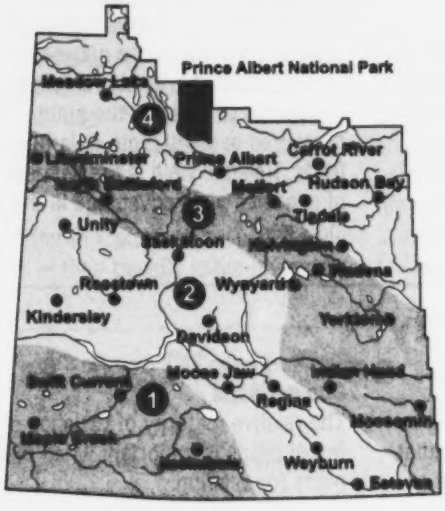
Saskatchewan Agriculture and Food

# Varieties of Grain Crops 2006

## Crop Production Areas




The cropland of Saskatchewan has been divided into four areas based roughly on agro-climatic conditions. Crop yields can vary from area to area. In choosing a variety, producers will want to consider the yield data in combination with marketing and agronomic factors.

**Area 1:** Drought is a definite hazard and high winds are common. Sawfly outbreaks often occur in this area. Cereal rust may be a problem in the southeastern section.

**Area 2:** Drought and sawfly may be problems in the western and central sections of the area. Cereal rust may be a problem in the southern section.

**Area 3:** Drought is not as likely to be a problem in this area, particularly in the east. Cereal rust may occur in the eastern portion. The frost-free period can be fairly short in the northern section.

**Area 4:** Rainfall is usually adequate for crop production. However, early fall frosts and wet harvest conditions are frequent problems.

**Note About Dividing Lines:**
The dividing lines do not represent distinct changes over a short distance. The change from one area to another is gradual.

## Table of Contents


***Cereal Crops***
Wheat ..... 4
Winter Wheat ..... 6
Rye ..... 6
Triticale ..... 6
Malting Barley ..... 7
Feed and Food Barley ..... 9
Oat ..... 10
**Malting Barley Article** ..... 11
***Other Crops***
Buckwheat, Caraway, Fenugreek, Canary Seed, Corriander, Safflower ..... 12
**Seed Facts** ..... 13
Pulse Crops
Lentil ..... 14
Field Pea ..... 15
Chickpea ..... 16
Dry Bean ..... 17
Faba Bean ..... 17
***Oilseed Crops***
Flax ..... 18
Mustard ..... 19
Sunflower ..... 19
Canola ..... 20
**Breeding Institutions and Seed Distributors** ..... 22


## Symbols Used in 2006 Seed Guide:

§ Variety may not be described in 2007

-- Insufficient test data to describe

Plant Breeders' Rights at time of printing

Applied for PBR protection at time of printing

**Abbreviations used:**
**Relative maturity: VE** = Very Early, **E** = Early, **M** = Medium, **L** = Late, **VL** = Very Late

**Resistance: VG** = Very Good, **G** = Good, **F** = Fair, **P** = Poor, **VP** = Very Poor, **n/a** = not applicable

**Seed size: S** = Small, **M** = Medium, **L** = Large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# Testing Varieties In Saskatchewan

*By Saskatchewan Agriculture and Food*

Regional testing of crop varieties is conducted to provide producers with information on the agronomic performance of varieties under different agro-climatic conditions. Saskatchewan producers will continue to have the opportunity to evaluate the newest grain crop varieties and their suitability for production in different regions of the province.

Saskatchewan Agriculture and Food (SAF) provides $100,000 toward a testing program that is based on industry-government partnership. An entry fee system is used in which variety owners or companies with the distribution rights to a particular variety pay a portion of the cost of having the variety tested.

A long-term database is developed providing comparisons to a commonly grown check variety. The data includes information on yield, various agronomic factors and certain market related traits.

The Saskatchewan Variety Performance Group (SVPG) administers the program. SVPG is composed of representatives from individual organizations with an interest in providing variety testing information.

SeCan Association administers the funds for SVPG. Crop coordinators manage the data and provide expertise for their respective crops.

The results of the testing are reviewed by the Saskatchewan Advisory Council on Grain Crops (SACGC), which also updates disease and other agronomic information and approves the data prior to inclusion in this publication.

The SAF grant also provides support to the Saskatchewan Pulse Growers (SPG) and the Canola Council of Canada (CCC), who carry out testing programs for their crops. CCC and its partners test on a prairie-wide basis using short-, mid- and long-season zones that have been used for many years in the co-op testing system for canola. SPG funds a testing program for pulse crops in Saskatchewan. Canola and pulse information are included in this publication.

**Relative yield of varieties**

Trials are conducted using uniform protocols and standard check varieties. Data are collected from as many sites as are available and statistically analyzed.

Results in this publication are aggregated over a number of years and on a zone basis.

Grain yield is a function of genetic and non-genetic factors. Variety trials are designed to measure the yield differences that are due to genetic causes. It is important to minimize variability due to non-genetic factors such as moisture, temperature, transpiration, weeds, diseases and other pests. Experimental design uses replication (repeated plantings of the varieties) and randomization (the position of the varieties within the test is assigned by chance) to estimate the precision with which the genetic factors can be measured.

Relative yield is the yield of one variety expressed as a percentage of the check variety. Yields obtained in these trials are not identical to those obtained in commercial production. However, the relative ranking of these varieties compared to the check variety, obtained over a number of years at several locations, would remain the same regardless of whether the grain yield was measured in small plots or large-scale fields. Relative yield is the best estimate of expected yield advantage in the areas indicated.

## Relative Maturity

**Ratings**

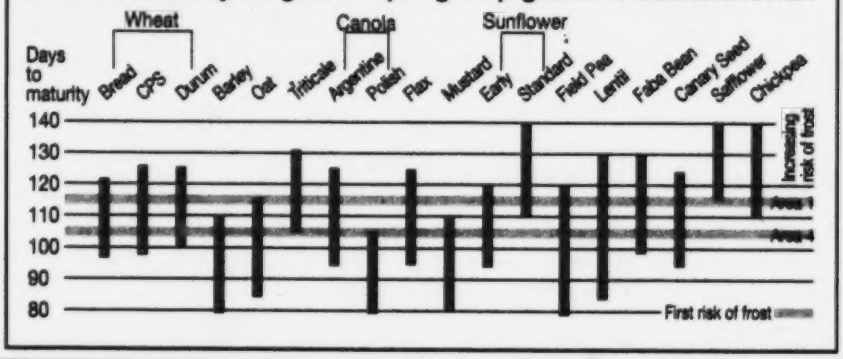
Maturity is measured from seeding to swathing ripeness. The actual number of days to reach maturity depends on local climatic conditions and to some extent on management practices.
Some of the tables in this booklet express the relative maturity in days while others use a five category scale: VE, E, M, L, and VL (very early, early, medium, late, very late). The limits for each category can vary from crop to crop. In barley, for example, AC Metcalfe would be medium with L and E varieties plus or minus 1-2 days, and VL and VE varieties beyond this range.

**Comparisons**

The relative maturity of varieties of different crops is important when making plans for seeding.
The table below compares the relative maturity ranges for crops grown in Saskatchewan.
Within each crop there are early and late maturing varieties. Whether a crop matures before the first killing frost depends on seeding date, management practices and environment factors. Not all crops have a wide area of adaptation.

It is noted that climatic conditions can cause a wide variability in crop maturity.

**Relative maturity ranges for spring crop grown in Saskatchewan**



# Plant Disease Resistance

Resistance to the most important diseases in Western Canada is assessed in most crops before the variety is registered. The methods used to assess resistance in each crop are different. In some cases, spores of the pathogen are applied to plants in the greenhouse or in the field. In other cases, assessment is based on naturally occurring infection in the field. Each variety is rated on a five-point scale of very poor (VP), poor (P), fair (F), good (G), very good (VG). New varieties are not tested side-by-side with all existing varieties. Because of variation in disease levels from year to year, each new variety is assigned a rating relative to a few existing varieties that serve as disease level standards or checks.

Varieties differ in resistance because of differences in their genetic make-up and/or differences in the genetic make-up of the pathogen that causes the disease. However, the genetic make-up of a pathogen can change over time, and overcome the resistance in a variety. In such cases, a variety with good resistance can quickly display poor resistance to a particular disease. Unfortunately, because not all varieties are tested side-by-side every year, the ratings of older varieties may be less reliable.

A number of factors can affect the level of disease symptoms observed at a given location in a given year. Environmental conditions such as moisture and temperature, the genetic make-up of both the variety and the pathogen, and the amount of the pathogen present can all affect the level of disease. Although a variety with fair resistance can show disease symptoms under favourable conditions, a susceptible variety would have much more disease under the same conditions.

For example, ascochyta blight of chickpea is a very aggressive fungal disease. It can completely kill susceptible varieties within two weeks of symptoms first appearing. Chickpea varieties grown commercially in Saskatchewan to date have ascochyta blight ratings from very poor to fair. This resistance weakens as plant development nears the flowering stage. Cool, moist environmental conditions favour the disease, and if these conditions persist early in the growing season, the disease symptoms can occur much earlier than the flowering stage. This is especially true on chickpea grown outside the Brown Soil Zone (the area of best adaptation) or on heavy textured soils such as clays and clay loams.

In these conditions, varieties with ascochyta blight resistance ratings of very poor to poor do not show good resistance to ascochyta and can be defoliated, with girdled branches and dead plants. If conditions turn warm and dry, the diseased plants can regrow from auxiliary nodes, often producing flowers and pods. However, these late pods and seeds will most likely be frozen in the first fall frost and have no commercial value.

## What are Plant Breeders' Rights?

Plant Breeders' Rights provides a way to assure that companies and institutions that invest in plant breeding are able to keep reasonable control of their varieties and secure fair compensation for their efforts. This encourages additional investment in crop variety development for Canadian farmers.

Plant Breeders' Rights for crop variety developers are comparable in many ways to patent protection in other areas. When a plant breeder develops a new variety for use in Canada they may apply under the Plant Breeders' Rights Act to obtain certain controls over the multiplication and sale of the seed of that variety. Sale, trade or any other transfer of the seed for propagation purposes is prohibited by law without:

PBR

**Progress through Research**

1) the written permission of the breeder or their agent, and;

2) payment of a royalty to the breeder or their agent.

Under PBR, farmers are allowed to save seed of the variety for their own use, on their own farms.

Varieties protected by Plant Breeders' Rights are identified with the above logo.

Further information on Plant Breeders' Rights can be obtained from the Plant Breeders' Rights Office, tel. (613) 225-2342, fax (613) 228-6629.

# Wheat

Main characteristics of varieties

| Variety | Years Tested | Area 1 & 2 | Area 3 & 4 | Irrigation | Relative Maturity in days | Protein | Lodging | Shattering | Resistance to: Sprouting | Stem Rust | Leaf Rust | Loose Smut | Bunt | Leaf Spot | Fusarium Head Blight | Head Awnedness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bread Wheat** | | Yield as % of AC Barrie | | | | | | | | | | | | | | |
| AC Barrie | 11 | 100 | 100 | 100 | 100 | 14.7 | G | G | G | G | P | G | G | P | F | N |
| AC Abbey | 8 | 96 | 95 | 98 | -1 | -0.8 | F | G | P | G | P | F | G | P | P | Y |
| CDC Alsask | 2 | 105 | 104 | -- | -1 | +0.2 | F | G | F | F | VG | G | G | P | P | N |
| CDC Bounty | 5 | 104 | 106 | -- | -1 | -0.1 | F | G | F | G | F | G | F | P | F | N |
| AC Cadillac | 7 | 102 | 102 | 98 | -1 | -0.2 | F | G | F | G | G | VG | VG | P | F | N |
| AC Cora § | 8 | 97 | 94 | 92 | -2 | -0.3 | F | G | F | G | VG | G | G | P | F | N |
| AC Domain § | 6 | 95 | 92 | 89 | -2 | +0.1 | G | G | VG | G | F | VG | F | VP | P | N |
| AC Eatonia | 7 | 93 | 88 | -- | 0 | +0.2 | P | G | VG | F | P | F | G | P | -- | N |
| AC Elsa | 7 | 104 | 104 | 97 | -1 | -0.1 | G | G | F | G | G | G | G | F | P | N |
| CDC Go | 3 | 102 | 103 | -- | -1 | -0.1 | G | G | P | G | F | P | G | VP | F | Y |
| Harvest | 5 | 100 | 105 | -- | -1 | -0.5 | VG | G | VG | G | G | G | G | P | VP | N |
| CDC Imagine | 4 | 98 | 102 | -- | 0 | -0.2 | G | G | F | F | F | G | G | P | VP | N |
| Infinity | 3 | 108 | 108 | -- | -1 | 0 | G | G | G | G | G | G | G | F | VP | N |
| AC Intrepid | 5 | 101 | 104 | 102 | -3 | -0.3 | G | G | P | G | G | F | G | P | P | N |
| Journey | 5 | 98 | 99 | -- | +2 | +0.4 | VG | G | F | G | F | F | G | F | F | N |
| Katepwa | 9 | 96 | 94 | 89 | -2 | -0.5 | F | G | F | G | P | G | G | P | F | N |
| Laura § | 8 | 102 | 98 | 82 | +1 | -0.4 | F | G | F | G | G | F | P | P | P | Y |
| Lillian | 4 | 105 | 100 | -- | 0 | 0 | F | G | G | G | VG | F | G | P | VP | N |
| Lovitt | 4 | 103 | 102 | -- | -1 | 0.0 | G | G | VG | G | G | G | F | -- | P | N |
| McKenzie | 5 | 106 | 102 | 109 | -1 | -0.5 | F | G | G | G | VG | VP | VG | P | F | Y |
| CDC Osler | 3 | 101 | 105 | -- | -1 | -0.3 | G | G | F | G | G | G | F | -- | VP | N |
| Peace | 2 | 99 | 103 | -- | -1 | -0.1 | G | G | P | G | G | G | VG | -- | VP | N |
| Prodigy | 5 | 103 | 104 | -- | +1 | +0.4 | G | F | G | G | G | F | VG | P | VP | Y |
| Somerset | 3 | 104 | 103 | -- | -1 | -0.1 | G | G | F | G | G | G | F | P | F | N |
| AC Splendor | 9 | 91 | 94 | 89 | -4 | +0.4 | F | G | F | G | G | F | G | VP | P | N |
| Superb | 5 | 107 | 109 | -- | +3 | -0.4 | G | G | G | G | P | F | G | VP | P | Y |
| CDC Teal | 7 | 101 | 100 | 99 | -2 | -0.1 | G | G | P | G | G | G | F | P | VP | N |
| 5500HR | 5 | 99 | 100 | -- | +1 | -0.5 | F | G | F | F | G | P | G | P | F | N |
| 5600HR | 5 | 100 | 100 | -- | +2 | -0.5 | G | G | F | F | VG | G | G | P | P | N |
| 5601HR | 4 | 95 | 97 | -- | +2 | -0.1 | G | G | F | G | G | P | G | P | F | N |
| 5602HR | 3 | 100 | 99 | -- | +1 | +0.3 | G | G | F | G | VG | G | G | P | G | Y |
| **Canada Prairie Spring - Red Seeded ♣** | | | | | | | | | | | | | | | | |
| AC Crystal | 11 | 118 | 115 | 110 | +3 | -1.2 | VG | G | P | G | P | P | VG | F | VP | Y |
| AC Foremost | 5 | 121 | 118 | 109 | +2 | -- | VG | G | F | G | P | P | VG | P | VP | Y |
| AC Taber | 5 | 120 | 118 | 116 | +4 | -- | VG | G | P | G | F | P | VG | F | VP | Y |
| 5700PR | 5 | 115 | 120 | 115 | +2 | -1.3 | VG | G | P | G | F | P | VG | P | VP | Y |
| 5701PR | 4 | 108 | 110 | 105 | +2 | -0.6 | G | G | P | G | VG | P | F | F | VP | Y |
| **Canada Prairie Spring - White Seeded ♣** | | | | | | | | | | | | | | | | |
| AC Karma § | 8 | 120 | 119 | 110 | +2 | -- | G | G | P | G | P | P | VG | P | P | Y |
| AC Vista | 9 | 122 | 122 | 113 | +1 | -1.5 | G | G | F | G | P | P | VG | P | VP | Y |
| **Hard White Wheat** | | | | | | | | | | | | | | | | |
| Kanata | 5 | 91 | 93 | -- | -2 | 0.0 | G | G | G | F | G | F | P | P | F | N |
| Snowbird | 5 | 99 | 102 | -- | +2 | -0.6 | G | G | G | G | VG | G | F | P | P | N |
| **Canada Western Extra Strong ♣** | | | | | | | | | | | | | | | | |
| Amazon § | 5 | 103 | 106 | -- | +2 | -1.1 | F | G | P | G | G | VG | F | F | P | N |
| Burnside | 3 | 90 | 93 | -- | +2 | -0.3 | F | G | P | G | G | VG | F | P | P | N |
| AC Corinne | 5 | 101 | 104 | -- | +3 | -1.1 | F | G | P | G | G | VG | F | P | P | N |
| AC Glenavon | 5 | 102 | 104 | -- | +2 | -1.1 | F | G | P | G | G | VG | F | P | P | N |
| Glenlea § | 8 | 104 | 109 | -- | +2 | -1.4 | F | G | P | G | F | VG | F | P | P | N |
| CDC Rama | 4 | 107 | 107 | -- | +2 | -0.2 | F | G | P | G | G | VG | G | P | F | Y |
| CDC Walrus | 3 | 102 | 101 | -- | +2 | -0.3 | F | G | F | G | G | VG | F | P | P | N |
| **Durum Wheat** | | Yield as % of Kyle | | | | | | | | | | | | | | |
| Kyle | 9 | 100 | 100 | 100 | 103 | 13.9 | P | VG | F | VG | VG | P | VG | P | VP | Y |
| AC Avonlea | 9 | 106 | 109 | 100 | -1 | +0.1 | F | VG | F | VG | VG | P | VG | F | VP | Y |
| Commander | 3 | 120 | 105 | -- | -1 | -0.3 | G | VG | F | VG | VG | P | VG | P | VP | Y |
| AC Morse | 8 | 103 | 109 | 111 | 0 | -0.1 | G | VG | F | VG | VG | VP | VG | VP | VP | Y |
| Napoleon | 7 | 105 | 109 | -- | -1 | -0.4 | F | VG | F | VG | VG | P | VG | F | VP | Y |
| AC Navigator | 8 | 106 | 98 | -- | 0 | -0.3 | G | VG | F | VG | VG | VP | VG | VP | VP | Y |
| Strongfield | 4 | 114 | 112 | -- | 0 | +0.3 | F | VG | F | VG | VG | VP | G | F | VP | Y |

♣ Includes direct and indirect comparisons with AC Barrie

# Wheat

Main characteristics of varieties

| Variety | Years Tested | Area 1 & 2 | Area 3 & 4 | Irrigation | Relative Maturity in days | Protein | Lodging | Shattering | Resistance to: Sprouting | Stem Rust | Leaf Rust | Loose Smut | Bunt | Leaf Spot | Fusarium Head Blight | Head Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bread Wheat** | Yield as % of AC Barrie | | | | | | | | | | | | | | | |
| AC Barrie ♣ | 11 | 100 | 100 | 100 | 100 | 14.7 | G | G | G | G | P | G | G | P | F | N |
| AC Abbey ♣ | 8 | 96 | 95 | 98 | -1 | -0.8 | F | G | P | G | P | F | G | P | P | Y |
| CDC Alsask ✪ | 2 | 105 | 104 | -- | -1 | +0.2 | F | G | F | F | VG | G | G | P | P | N |
| CDC Bounty | 5 | 104 | 106 | -- | -1 | -0.1 | F | G | F | G | F | G | F | P | F | N |
| AC Cadillac ♣ | 7 | 102 | 102 | 98 | -1 | -0.2 | F | G | F | G | G | VG | VG | P | F | N |
| AC Cora § | 8 | 97 | 94 | 92 | -2 | -0.3 | F | G | F | G | VG | G | G | P | F | N |
| AC Domain § | 6 | 95 | 92 | 89 | -2 | +0.1 | G | G | VG | G | F | VG | F | VP | P | N |
| AC Eatonia | 7 | 93 | 88 | -- | 0 | +0.2 | P | G | VG | F | P | F | G | P | -- | N |
| AC Elsa ♣ | 7 | 104 | 104 | 97 | -1 | -0.1 | G | G | F | G | G | G | G | F | P | N |
| CDC Go | 3 | 102 | 103 | -- | -1 | -0.1 | G | G | P | G | F | P | G | VP | F | Y |
| Harvest ♣ | 5 | 100 | 105 | -- | -1 | -0.5 | VG | G | VG | G | G | G | G | P | VP | N |
| CDC Imagine ♣ | 4 | 98 | 102 | -- | 0 | -0.2 | G | G | F | F | F | G | G | P | VP | N |
| Infinity ✪ | 3 | 108 | 108 | -- | -1 | 0 | G | G | G | G | G | G | G | F | VP | N |
| AC Intrepid ♣ | 5 | 101 | 104 | 102 | -3 | -0.3 | G | G | P | G | G | F | G | P | P | N |
| Journey ♣ | 5 | 98 | 99 | -- | +2 | +0.4 | VG | G | F | G | F | F | G | F | F | N |
| Katepwa | 9 | 96 | 94 | 89 | -2 | -0.5 | F | G | F | G | P | G | G | P | F | N |
| Laura § | 8 | 102 | 98 | 82 | +1 | -0.4 | F | G | F | G | G | F | P | P | P | Y |
| Lillian ♣ | 4 | 105 | 100 | -- | 0 | 0 | F | G | G | G | VG | F | G | P | VP | N |
| Lovitt ♣ | 4 | 103 | 102 | -- | -1 | 0.0 | G | G | VG | G | G | G | F | -- | P | N |
| McKenzie | 5 | 106 | 102 | 109 | -1 | -0.5 | F | G | G | G | VG | VP | VG | P | F | Y |
| CDC Osler | 3 | 101 | 105 | -- | -1 | -0.3 | G | G | F | G | G | G | F | -- | VP | N |
| Peace | 2 | 99 | 103 | -- | -1 | -0.1 | G | G | P | G | G | G | VG | -- | VP | N |
| Prodigy | 5 | 103 | 104 | -- | +1 | +0.4 | G | F | G | G | G | F | VG | P | VP | Y |
| Somerset ✪ | 3 | 104 | 103 | -- | -1 | -0.1 | G | G | F | G | G | G | F | P | F | N |
| AC Splendor | 9 | 91 | 94 | 89 | -4 | +0.4 | F | G | F | G | G | F | G | VP | P | N |
| Superb ♣ | 5 | 107 | 109 | -- | +3 | -0.4 | G | G | G | G | P | F | G | VP | P | Y |
| CDC Teal | 7 | 101 | 100 | 99 | -2 | -0.1 | G | G | P | G | G | G | F | P | VP | N |
| 5500HR ♣ | 5 | 99 | 100 | -- | +1 | -0.5 | F | G | F | F | G | P | G | P | F | N |
| 5600HR ♣ | 5 | 100 | 100 | -- | +2 | -0.5 | G | G | F | F | VG | G | G | P | P | N |
| 5601HR ♣ | 4 | 95 | 97 | -- | +2 | -0.1 | G | G | F | G | G | P | G | P | F | N |
| 5602HR ♣ | 3 | 100 | 99 | -- | +1 | +0.3 | G | G | F | G | VG | G | G | P | G | Y |
| **Canada Prairie Spring - Red Seeded ♣** | | | | | | | | | | | | | | | | |
| AC Crystal ♣ | 11 | 118 | 115 | 110 | +3 | -1.2 | VG | G | P | G | P | P | VG | F | VP | Y |
| AC Foremost | 5 | 121 | 118 | 109 | +2 | -- | VG | G | F | G | P | P | VG | P | VP | Y |
| AC Taber | 5 | 120 | 118 | 116 | +4 | -- | VG | G | P | G | F | P | VG | F | VP | Y |
| 5700PR ♣ | 5 | 115 | 120 | 115 | +2 | -1.3 | VG | G | P | G | F | P | VG | P | VP | Y |
| 5701PR ♣ | 4 | 108 | 110 | 105 | +2 | -0.6 | G | G | P | G | VG | P | F | F | VP | Y |
| **Canada Prairie Spring - White Seeded ♣** | | | | | | | | | | | | | | | | |
| AC Karma § | 8 | 120 | 119 | 110 | +2 | -- | G | G | P | G | P | P | VG | P | P | Y |
| AC Vista ♣ | 9 | 122 | 122 | 113 | +1 | -1.5 | G | G | F | G | P | P | VG | P | VP | Y |
| **Hard White Wheat** | | | | | | | | | | | | | | | | |
| Kanata ♣ | 5 | 91 | 93 | -- | -2 | 0.0 | G | G | G | F | G | F | P | P | F | N |
| Snowbird ♣ | 5 | 99 | 102 | -- | +2 | -0.6 | G | G | G | G | VG | G | F | P | P | N |
| **Canada Western Extra Strong ♣** | | | | | | | | | | | | | | | | |
| Amazon § ♣ | 5 | 103 | 106 | -- | +2 | -1.1 | F | G | P | G | G | VG | F | F | P | N |
| Burnside | 3 | 90 | 93 | -- | +2 | -0.3 | F | G | P | G | G | VG | F | P | P | N |
| AC Corinne | 5 | 101 | 104 | -- | +3 | -1.1 | F | G | P | G | G | VG | F | P | P | N |
| AC Glenavon | 5 | 102 | 104 | -- | +2 | -1.1 | F | G | P | G | G | VG | F | P | P | N |
| Glenlea § | 8 | 104 | 109 | -- | +2 | -1.4 | F | G | P | G | F | VG | F | P | P | N |
| CDC Rama | 4 | 107 | 107 | -- | +2 | -0.2 | F | G | P | G | G | VG | G | P | F | Y |
| CDC Walrus | 3 | 102 | 101 | -- | +2 | -0.3 | F | G | F | G | G | VG | F | P | P | N |
| **Durum Wheat** | Yield as % of Kyle | | | | | | | | | | | | | | | |
| Kyle | 9 | 100 | 100 | 100 | 103 | 13.9 | P | VG | F | VG | VG | P | VG | P | VP | Y |
| AC Avonlea ♣ | 9 | 106 | 109 | 100 | -1 | +0.1 | F | VG | F | VG | VG | P | VG | F | VP | Y |
| Commander ✪ | 3 | 120 | 105 | -- | -1 | -0.3 | G | VG | F | VG | VG | P | VG | P | VP | Y |
| AC Morse ♣ | 8 | 103 | 109 | 111 | 0 | -0.1 | G | VG | F | VG | VG | VP | VG | VP | VP | Y |
| Napoleon ✪ | 7 | 105 | 109 | -- | -1 | -0.4 | F | VG | F | VG | VG | P | VG | F | VP | Y |
| AC Navigator ♣ | 8 | 106 | 98 | -- | 0 | -0.3 | G | VG | F | VG | VG | VP | VG | VP | VP | Y |
| Strongfield ♣ | 4 | 114 | 112 | -- | 0 | +0.3 | F | VG | F | VG | VG | VP | G | F | VP | Y |

♣ Includes direct and indirect comparisons with AC Barrie

## Additional Information

Spike awnedness is a trait being reported for the first time. Grain yield and relative time to maturity of all varieties of common wheat are compared to **AC Barrie**. The grain yield and relative time to maturity of all durum varieties are rated relative to **Kyle.**

Most of the varieties have been rated for their relative resistance to pre-harvest sprouting. Varieties with high test weight retain grade better under adverse harvest weather than those with low test weight. During wet harvest weather, grades drop more rapidly due to sprouting in swathed than in standing crops.

Several new races of leaf rust capable of overcoming leaf rust resistance gene Lr 16 have multiplied rapidly. If varieties rated poor or very poor for leaf rust are sown in southeastern Saskatchewan, early seeding may minimize risk of crop losses.

Durum wheat varieties are generally more susceptible than CWRS varieties to Fusarium Head Blight, and CPS varieties are intermediate.

All varieties have moderately good resistance to common root rot.

Seed of varieties rated poor and very poor for bunt and loose smut should be treated. Please refer to the *Seed Facts* section of this booklet or *Guide to Crop Protection 2006*.

### Canada Western Red Spring Wheat

Seed of the new varieties **CDC Alsask, CDC Go, Infinity, CDC Osler, Peace**, and **Somerset** will not be available in 2006.

Limited quantities of seed of the new varieties **5601HR** and **5602HR** will be available in 2006.

**AC Abbey, AC Eatonia,** and **Lillian** have a solid stem and some resistance to the wheat stem sawfly. **AC Abbey** has semidwarf stature. **AC Cadillac** and **CDC Bounty** have large seed size and an exceptionally heavy test weight. **CDC Imagine** is tolerant to the CLEARFIELD® herbicide ADRENALIN. **McKenzie** may express a purplish stem under some conditions. **Prodigy** has an exceptionally heavy test weight. **Superb** has very large seed size and slightly shorter stature than **AC Barrie.**

### Canada Prairie Spring Wheat

**AC Vista** has higher protein content and stronger gluten than **AC Karma**.
**AC Crystal**, **5700PR** and **5701PR** have improved quality compared to **AC Foremost** and **AC Taber.**

### Canada Western Extra Strong

Seed of the new varieties **Burnside** and **CDC Walrus** will not be available in 2006. Limited quantities of seed of **CDC Rama** will be available in 2006.

### Canada Western Amber Durum

Limited quantities of seed of the variety **Commander** will be available in 2006. All durum varieties are susceptible to two new races of loose smut.

All newer durum varieties have shorter stronger straw than **Kyle**. **Kyle** and **AC Morse** have lower pigment content in the grain than other varieties. **AC Morse** and **Napoleon** have lower test weight than **Kyle**.

**Commander** and **AC Navigator** have extra strong gluten properties and semidwarf stature. They may be grown only under contract with the Canadian Wheat Board and Saskatchewan Wheat Pool.

### Soft White Spring Wheat

**AC Reed** and **AC Phil** are moderately resistant to shattering, powdery mildew, and common root rot, moderately susceptible to leaf and stem rust, and susceptible to common bunt. **AC Nanda** has improved resistance to common bunt, powdery mildew, and black point. It yields slightly less than **AC Reed** and **AC Phil** and is about four days later maturing. **Bhishaj** and **AC Andrew** have higher grain yield and mature about two days later than **AC Reed** and **AC Phil**. Soft-white spring wheat varieties are susceptible to pre-harvest sprouting.

The Saskatchewan Advisory Council on Grain Crops (SACGC) and the Saskatchewan Variety Performance Group (SVPG) coordinate, supervise and review the collection, analysis and reporting of information in this booklet.

Membership consists of representatives from:

- **Saskatchewan Agriculture and Food**
- **Seed Companies**
- **Sask. Irrigation Development Centre**
- **Sask. Seed Growers' Association**
- **Agriculture and Agri-Food Canada**
- **Crop Development Centre**
- **Producer Associations**
- **Sask. Association of Rural Municipalities**

SACGC and SVPG gratefully acknowledge the contributions of all individuals and organizations involved in the generation and publication of this information.

## Winter Wheat
Main characteristics of varieties

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CDC Clair | 15 | 100 | 100 | 100 | G | VG | P | P | P |
| AC Bellatrix | 7 | 99 | 96 | N/A | G | P | VP | P | G |
| CDC Buteo | 8 | 97 | 98 | 110 | G | VG | G | G | P |
| CDC Falcon | 11 | 98 | 94 | 117 | VG | F | VG | G | P |
| CDC Harrier | 12 | 102 | 100 | 110 | G | G | G | P | P |
| CDC Kestrel | 15 | 101 | 101 | 103 | G | VG | P | P | P |
| McClintock ♣ | 8 | 97 | 98 | 111 | G | P | VG | VG | P |
| CDC Osprey | 15 | 100 | 99 | 93 | G | VG | P | P | P |
| Radiant ✪ | 2 | N/A | 86 | N/A | G | G | P | P | F |
| CDC Raptor | 9 | 99 | 100 | 113 | VG | VG | VG | G | P |

## Rye
Main characteristics of varieties

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Prima | 16 | 100 | 100 | M | VG | F | F | G |
| AC Rifle | 16 | 98 | 90 | M | VG | VG | VG | G |
| AC Remington | 5 | 109 | 97 | M | VG | VG | G | -- |
| RT193 | 3 | 120 | 104 | M | VG | VG | VG | -- |

## Triticale
Main characteristics of varieties

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AC Certa | 14 | 100 | 100 | 74 | M | G | VG | VG | VG | G |
| AC Alta | 13 | 105 | 100 | 68 | L | G | VG | VG | VG | F |
| AC Copia | 13 | 100 | 97 | 72 | M | G | VG | VG | VG | F |
| Pronghorn | 13 | 100 | 102 | 68 | E | G | VG | VG | VG | F |
| Sandro | 10 | 105 | 102 | 73 | E | G | VG | VG | VG | G |
| AC Ultima | 10 | 105 | 102 | 70 | E | G | VG | VG | VG | F |

## Additional Information:

Triticale matures 1-2 days later than **AC Crystal** CPS wheat, therefore it should be planted as early as possible. The seeding rate for triticale should be at least 30 percent more than that of CWRS wheat to obtain the same number of plants per square foot.

Susceptiblity to fusarium head blight is at least as great in triticale as in wheat.

**AC Ultima** has improved Hagberg Falling Number.

Winter triticale has winter hardiness equal to that of winter wheat.

**Pika** and **Bobcat** are the only available cultivars of winter triticale.

**Bobcat** is awnletted with shorter and stronger straw.

## Malting Barley
Main characteristics of varieties

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Malting acceptance: Recommended** | | | | | | | | | | | | | | | | | |
| AC Metcalfe ♣ | 12 | 2 | R | 100 | 100 | 100 | 100 | M | N | G | F | P | VG | F | F | G | F |
| CDC Copeland ♣ | 8 | 2 | R | 109 | 107 | 107 | 107 | M | N | G | F | P | P | F | F | F | F |
| Harrington | 11 | 2 | R | 99 | 92 | 89 | 88 | M | N | F | VP | P | P | P | F | P | G |
| CDC Kendall ♣ | 11 | 2 | R | 99 | 103 | 102 | 102 | M | N | G | F | P | P | P | F | F | F |
| Merit ♣ | 9 | 2 | R | 104 | 112 | 109 | 112 | L | N | F | F | P | P | G | F | G | F |
| Stein | 11 | 2 | R | 102 | 100 | 101 | 99 | M | N | F | F | P | P | G | P | G | F |
| CDC Bethford ♣ | 6 | 6 | S | 109 | 108 | 106 | 112 | M | N | G | G | P | VP | G | F | G | P |
| Excel | 10 | 6 | S | 101 | 103 | 104 | 104 | M | N | VG | F | P | P | G | G | G | VP |
| Legacy ♣ | 6 | 6 | S | 108 | 103 | 99 | 107 | M | N | G | F | P | P | F | G | G | P |
| Robust | 8 | 6 | S | 86 | 98 | 98 | 95 | M | N | G | F | P | P | F | G | G | VP |
| Tradition ♣ | 5 | 6 | S | 97 | 113 | 105 | -- | M | N | VG | F | P | P | VG | G | G | VP |
| **Malting acceptance: Under Test** | | | | | | | | | | | | | | | | | |
| Calder ♣ | 6 | 2 | R | -- | 104 | 108 | 106 | M | N | F | G | P | VG | VG | F | G | F |
| Newdale ♣ | 6 | 2 | R | 116 | 111 | 114 | 111 | M | N | G | F | P | P | F | F | G | F |
| CDC Select ♣ | 7 | 2 | R | 104 | 103 | 103 | 103 | M | N | G | F | P | F | F | F | F | P |
| CDC Clyde ♣ | 4 | 6 | S | -- | 107 | 106 | -- | M | N | VG | F | P | P | F | G | G | VP |
| CDC Laurence ✪ | 3 | 6 | S | -- | 114 | 108 | -- | M | N | G | F | P | P | G | F | G | P |
| CDC Springside ♣ | 4 | 6 | S | 92 | 109 | 101 | -- | M | N | F | F | P | P | VG | F | G | VP |
| CDC Tisdale ♣ | 6 | 6 | S | 106 | 106 | 99 | 105 | M | N | G | G | P | P | G | F | G | P |
| **Other** | | | | | | | | | | | | | | | | | |
| AC Bountiful § | 11 | 2 | R | 101 | 103 | 105 | 103 | M | N | G | G | P | VG | VG | F | G | F |
| CDC Stratus § | 11 | 2 | R | 100 | 104 | 105 | 104 | M | N | G | F | P | F | F | F | G | F |
| B1602 § | 11 | 6 | R | 88 | 100 | 98 | 99 | M | N | G | F | P | P | G | VG | G | VP |
| CDC Sisler § | 10 | 6 | S | 98 | 99 | 104 | 104 | M | N | F | P | P | P | P | F | G | F |
| CDC Yorkton § ♣ | 8 | 6 | S | 98 | 100 | 105 | 113 | M | N | G | G | P | P | G | F | G | P |

♣ These categories are established annually by the Canadian Malting Barley Technical Centre (CMBTC). Call 204-984-4399 for more information.

* Relative maturity: The relative maturity of the check, AC Metcalfe, is M (on average, 91 days from seeding to swathing ripeness)

‡ N=normal, SD=semi-dwarf

** Although not on the CMBTC list, a malting barley market may exist for these varieties.

## Lines Under Evaluation of Malting and Brewing Quality

Small scale tests are a good measure of malting potential but are not sufficient to determine the commercial acceptability of malting varieties. Final acceptance is given only after two years of successful plant scale evaluation. Several carload lots of barley are malted and subsequently brewed. The beer is then given the ultimate test - a taste panel. This process will normally take a minimum of three years. A crop grown in 2006 will be malted in January-February, 2007. It will be brewed in May-June, 2007, aged and tasted in October-November 2007.

## Additional Information:

Growers are reminded that the malting and brewing industry is cautious about using new varieties.

Growers are cautioned that most malting varieties, especially two rows, are susceptible to sprouting.

## Winter Wheat

Main characteristics of varieties

| | | Yield as % of CDC Clair | | | Resistance to: | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Years Tested | Area 1 & 2 | Area 3 & 4 | Irrigation | Lodging | Winter Damage | Stem Rust | Leaf Rust | Bunt |
| CDC Clair | 15 | 100 | 100 | 100 | G | VG | P | P | P |
| AC Bellatrix | 7 | 99 | 96 | N/A | G | P | VP | P | G |
| CDC Buteo | 8 | 97 | 98 | 110 | G | VG | G | G | P |
| CDC Falcon | 11 | 98 | 94 | 117 | VG | F | VG | G | P |
| CDC Harrier | 12 | 102 | 100 | 110 | G | G | G | P | P |
| CDC Kestrel | 15 | 101 | 101 | 103 | G | VG | P | P | P |
| McClintock ® | 8 | 97 | 98 | 111 | G | P | VG | VG | P |
| CDC Osprey | 15 | 100 | 99 | 93 | G | VG | P | P | P |
| Radiant ○ | 2 | N/A | 86 | N/A | G | G | P | P | F |
| CDC Raptor | 9 | 99 | 100 | 113 | VG | VG | VG | G | P |

## Rye

Main characteristics of varieties

| | | Yield as % of Prima | | | | | Resistance to: | |
|---|---|---|---|---|---|---|---|---|
| Variety | Years Tested | Area 1 & 2 | Area 3 | Relative Maturity | Winter Damage | Shattering | Lodging | Stem Smut |
| Prima | 16 | 100 | 100 | M | VG | F | F | G |
| AC Rifle | 16 | 98 | 90 | M | VG | VG | VG | G |
| AC Remington | 5 | 109 | 97 | M | VG | VG | G | -- |
| RT193 | 3 | 120 | 104 | M | VG | VG | VG | -- |

## Triticale

Main characteristics of varieties

| | | Yield as % of AC Certa | | | | Resistance to: | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Years Tested | Area 1 & 2 | Area 3 | Test Weight kg/hl | Relative Maturity | Lodging | Stem Rust | Leaf Rust | Bunt | Root Rot |
| AC Certa | 14 | 100 | 100 | 74 | M | G | VG | VG | VG | G |
| AC Alta | 13 | 105 | 100 | 68 | L | G | VG | VG | VG | F |
| AC Copia | 13 | 100 | 97 | 72 | M | G | VG | VG | VG | F |
| Pronghorn | 13 | 100 | 102 | 68 | E | G | VG | VG | VG | F |
| Sandro | 10 | 105 | 102 | 73 | E | G | VG | VG | VG | G |
| AC Ultima | 10 | 105 | 102 | 70 | E | G | VG | VG | VG | F |

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**Bobcat** is awnletted with shorter and stronger straw.

## Malting Barley

Main characteristics of varieties

| Category ♣ & Variety | Years Tested | 2 or 6 Row | Rough or Smooth Awns | Yield as % of AC Metcalfe: Area 1 | Area 2 | Area 3 | Area 4 | Relative Maturity* | Straw ‡ | Lodging | Net Blotch | Scald | Resistance to: Loose Smut | Other Smuts | Root Rot | Stem Rust | Fusarium Head Blight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Malting acceptance: Recommended** | | | | | | | | | | | | | | | | | |
| AC Metcalfe | 12 | 2 | R | 100 | 100 | 100 | 100 | M | N | G | F | P | VG | F | F | G | F |
| CDC Copeland | 8 | 2 | R | 109 | 107 | 107 | 107 | M | N | G | F | P | P | F | F | F | F |
| Harrington | 11 | 2 | R | 99 | 92 | 89 | 88 | M | N | F | VP | P | P | P | F | P | G |
| CDC Kendall | 11 | 2 | R | 99 | 103 | 102 | 102 | M | N | G | F | P | P | P | F | F | F |
| Merit | 9 | 2 | R | 104 | 112 | 109 | 112 | L | N | F | F | P | P | G | F | G | F |
| Stein | 11 | 2 | R | 102 | 100 | 101 | 99 | M | N | F | F | P | P | G | P | G | F |
| CDC Battleford | 6 | 6 | S | 109 | 108 | 106 | 112 | M | N | G | G | P | VP | G | F | G | P |
| Excel | 10 | 6 | S | 101 | 103 | 104 | 104 | M | N | VG | F | P | P | G | G | G | VP |
| Legacy | 6 | 6 | S | 108 | 103 | 99 | 107 | M | N | G | F | P | P | F | G | G | P |
| Robust | 8 | 6 | S | 86 | 98 | 98 | 95 | M | N | G | F | P | P | F | G | G | VP |
| Tradition | 5 | 6 | S | 97 | 113 | 105 | -- | M | N | VG | F | P | P | VG | G | G | VP |
| **Malting acceptance: Under Test** | | | | | | | | | | | | | | | | | |
| Calder | 6 | 2 | R | -- | 104 | 108 | 106 | M | N | F | G | P | VG | VG | F | G | F |
| Newdale | 6 | 2 | R | 116 | 111 | 114 | 111 | M | N | G | F | P | P | F | F | G | F |
| CDC Select | 7 | 2 | R | 104 | 103 | 103 | 103 | M | N | G | F | P | F | F | F | F | P |
| CDC Clyde | 4 | 6 | S | -- | 107 | 106 | -- | M | N | VG | F | P | P | F | G | G | VP |
| CDC Laurence | 3 | 6 | S | -- | 114 | 108 | -- | M | N | G | F | P | P | G | F | G | P |
| CDC Springside | 4 | 6 | S | 92 | 109 | 101 | -- | M | N | F | F | P | P | VG | F | G | VP |
| CDC Tisdale | 6 | 6 | S | 106 | 106 | 99 | 105 | M | N | G | G | P | P | G | F | G | P |
| **Other **** | | | | | | | | | | | | | | | | | |
| AC Bountiful § | 11 | 2 | R | 101 | 103 | 105 | 103 | M | N | G | G | P | VG | VG | F | G | F |
| CDC Stratus § | 11 | 2 | R | 100 | 104 | 105 | 104 | M | N | G | F | P | F | F | F | G | F |
| B1602 § | 11 | 6 | R | 88 | 100 | 98 | 99 | M | N | G | F | P | P | G | VG | G | VP |
| CDC Sisler § | 10 | 6 | S | 98 | 99 | 104 | 104 | M | N | F | P | P | P | P | F | G | F |
| CDC Yorkton § | 8 | 6 | S | 98 | 100 | 105 | 113 | M | N | G | G | P | P | G | F | G | P |

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Growers are reminded that the malting and brewing industry is cautious about using new varieties.

Growers are cautioned that most malting varieties, especially two rows, are susceptible to sprouting.

CMBTC™
CANADIAN MALTING BARLEY TECHNICAL CENTRE

# Recommended Malting Barley Varieties 2006-07

These recommendations are based on the varieties expected to be selected by grain and malting companies for both domestic and export markets from the 2006 harvest. Seeding decisions should be based on agronomic considerations and feedback from your grain company representative, local elevator operators and malting companies. This list is published on behalf of the members of the CMBTC, and other companies that have provided their input. Varieties not listed are not recommended. The varieties are listed in descending order to the amount selected in 2005-06

## Recommended Two-Row Barley Varieties

| VARIETY | DOMESTIC | EXPORT | MARKET DEMAND |
|---|---|---|---|
| AC Metcalfe[4] | Established | Established | Stable, High Demand |
| CDC Kendall[1,5] | Established | Growing | Increasing Demand |
| CDC Copeland[4] | Established | Growing | Increasing Demand |
| Harrington[4] | Established | Established | Stable, Demand |
| Stein[1] | Limited | Limited | Low Demand |
| Merit[1,2,3,5] | Established | Limited | Low Demand |

Newdale (TR258), Calder (TR262), and CDC Select (TR153) are not yet being grown for the commercial market. Production is limited to quantities required for testing and market development.

## Recommended Six-Row Barley Varieties

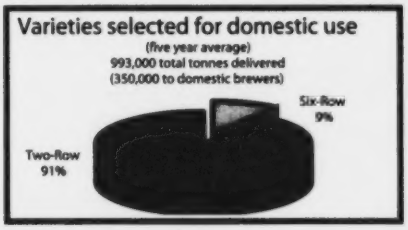
| VARIETY | DOMESTIC | EXPORT | MARKET DEMAND |
|---|---|---|---|
| Legacy[1,2,3,5] | Growing | Growing | Increasing Demand |
| Excel | Established | Established | Declining Demand |
| Tradition[1,2,3] | Limited | Growing | Increasing Demand |
| Robust | No Market | Limited | Declining Demand |
| CDC Battleford[4] | Limited | No Market | Increasing Demand |

CDC Tisdale (BT462), CDC Springside (BT478), CDC Clyde (BT490) and CDC Laurence (BT494) are not yet being grown for the commercial market. Production is limited to quantities required for testing and market development.

"Domestic" as used in this publication, means barley selected for domestic processing into malt to supply domestic brewers as well as for malt destined for export. "Export" is that malting barley designated for markets outside of Canada including the US, shipped as unmalted grain.

***The CMBTC recommends the use of Certified seed to ensure varietal purity and to increase opportunity for selection.***

The following companies have Pedigreed seed distribution rights for those varieties that are footnoted:
1- (Agricore United); 2- (BARI-Canada); 3 - (FPS); 4 - (SeCan); 5 - (SWP).



CMBTC Members: A.C. Toepfer Canada, Agricore United, Busch Agricultural Resources-Canada, Canadian Wheat Board, Canadian Grain Commission, Canadian International Grains Institute, Cargill AgHorizons, James Richardson International, Parrish & Heimbecker, FarmPure Seeds, the Public Plant Breeders, Saskatchewan Wheat Pool Inc., Rahr Malting Canada, SeCan.

Questions? Call your selector, seed company, grain handling company or the Canadian Wheat Board, or contact the CMBTC at 204-984-4399 (cmbtc@cmbtc.com)

# Feed and Food Barley

Main characteristics of varieties

106-04447/

| Variety and Year | Years Tested | Row | Straw Strength | Yield as % of AC Metcalfe: Area 1 | Area 2 | Area 3 | Area 4 | Relative Maturity* | Stature‡ | Lodging | Net Blotch | Scald | Loose Smut | Common Root Rot | Root Rot | Stem Rust | Fusarium Head Blight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Feed** | | | | | | | | | | | | | | | | | |
| CDC Bold | 7 | 2 | R | 113 | 110 | 111 | 113 | L | SD | G | P | F | P | VG | G | G | VP |
| Conlon | 1 | 2 | R | -- | 95 | 85 | -- | M | N | G | F | P | P | F | G | G | G |
| CDC Cowboy | 1 | 2 | R | -- | 103 | -- | -- | L | N | F | G | P | P | VG | F | G | G |
| CDC Dolly | 11 | 2 | R | 103 | 103 | 104 | 102 | M | N | G | P | G | P | G | F | G | F |
| CDC Fleet § | 11 | 2 | R | 88 | 89 | 89 | 89 | VE | N | VG | F | F | P | VP | P | G | F |
| CDC Helgason | 7 | 2 | R | 107 | 104 | 105 | 102 | M | N | G | G | P | VG | G | F | F | P |
| McLeod | 3 | 2 | R | -- | 110 | 119 | -- | M | N | G | P | P | P | VG | F | P | VP |
| Niobe | 6 | 2 | R | -- | 100 | 104 | 108 | M | N | F | F | P | P | G | P | G | P |
| Ponoka | 4 | 2 | R | -- | 112 | 127 | -- | L | N | G | F | G | VG | VG | F | P | F |
| Rivers | 5 | 2 | R | 105 | 105 | 111 | 102 | M | N | G | VG | P | VG | VG | G | G | F |
| CDC Trey | 5 | 2 | R | -- | 105 | 109 | 113 | M | N | VG | VG | P | P | VG | F | G | F |
| Xena | 7 | 2 | R | 112 | 112 | 114 | 113 | M | N | G | F | P | P | VG | F | G | F |
| CDC Earl | 10 | 6 | R | 99 | 111 | 110 | 120 | L | SD | VG | G | F | P | G | G | G | VP |
| AC Harper | 11 | 6 | S | 104 | 104 | 106 | 101 | M | N | G | F | G | P | F | F | F | VP |
| Kasota § | 8 | 6 | S | 97 | 106 | 109 | 108 | E | SD | G | F | G | P | G | P | G | VP |
| Lacey | 4 | 6 | S | 108 | 99 | 98 | -- | M | N | G | F | P | P | G | G | G | VP |
| AC Lacombe | 11 | 6 | S | 98 | 110 | 110 | 102 | M | N | G | F | F | P | VG | F | G | VP |
| Mahigan § | 8 | 6 | S | 106 | 112 | 114 | 115 | E | SD | VG | F | G | P | G | P | G | VP |
| Manny | 4 | 6 | S | -- | 114 | 111 | -- | M | N | F | F | VG | P | VG | P | P | VP |
| Niska | 6 | 6 | S | 105 | 120 | 123 | 129 | L | SD | F | P | P | P | G | P | G | VP |
| AC Rosser | 11 | 6 | S | 112 | 116 | 115 | 115 | M | N | G | F | VP | P | VG | G | G | VP |
| Trochu | 6 | 6 | S | 104 | 105 | 107 | 117 | M | N | F | P | F | P | G | G | G | P |
| Vivar | 6 | 6 | R | 114 | 117 | 112 | 131 | L | SD | G | F | P | F | G | F | G | VP |
| **Hulless** | | | | | | | | | | | | | | | | | |
| CDC Freedom | 9 | 2 | R | 89 | 91 | 90 | 89 | M | N | G | F | P | -- | G | P | G | G |
| CDC Gainer | 10 | 2 | R | 84 | 87 | 88 | 89 | M | N | F | F | F | P | F | F | G | F |
| HB 805 | 5 | 2 | R | 95 | 96 | 97 | 93 | L | N | F | F | P | F | G | F | F | F |
| CDC McGwire | 8 | 2 | R | 96 | 99 | 99 | 99 | M | N | G | VG | F | P | G | G | F | F |
| AC Bacon | 9 | 6 | R | 89 | 95 | 95 | 98 | M | N | G | P | F | P | F | F | G | G |
| Peregrine | 7 | 6 | R | 68 | 70 | 75 | 75 | M | SD | VG | F | F | P | P | G | G | VP |

* Relative maturity: The relative maturity of the check, AC Metcalfe, is M (on average, 91 days from seeding to swathing ripeness)

‡ : N=normal, SD=semi-dwarf

## Forage Barley

**Dillon, AC Ranger** and **Westford** are six-row forage varieties.
**CDC Cowboy** is a two-row forage variety.

## Hulless

In hulless varieties the hull is left in the field, therefore, comparable yields are 9-12 percent lower. Hulless seed is more susceptible to damage than hulled seed, so handling should be minimized.

## Hulless Waxy

**CDC Alamo, CDC Candle, CDC Fibar, HB803, Merlin** and **CDC Rattan** are waxy starch varieties for specialty markets.
For further information contact Agricore United.

## Irrigation

Disease resistance, straw strength and maturity are more critical when barley is grown under irrigation. Growers should select early, strong-strawed, disease resistant varieties and should consider semi-dwarf varieties.

CMBTC™

CANADIAN MALTING BARLEY TECHNICAL CENTRE

# Recommended Malting Barley Varieties 2006-07

These recommendations are based on the varieties expected to be selected by grain and malting companies for both domestic and export markets from the 2006 harvest. Seeding decisions should be based on agronomic considerations and feedback from your grain company representative, local elevator operators and malting companies. This list is published on behalf of the members of the CMBTC, and other companies that have provided their input. Varieties not listed are not recommended. The varieties are listed in descending order to the amount selected in 2005-06

## Recommended Two-Row Barley Varieties

| VARIETY | DOMESTIC | EXPORT | MARKET DEMAND |
|---|---|---|---|
| AC Metcalfe[4] | Established | Established | Stable, High Demand |
| CDC Kendall[1,5] | Established | Growing | Increasing Demand |
| CDC Copeland[4] | Established | Growing | Increasing Demand |
| Harrington[4] | Established | Established | Stable, Demand |
| Stein[1] | Limited | Limited | Low Demand |
| Merit[1,2,3,5] | Established | Limited | Low Demand |

Newdale (TR258), Calder (TR262), and CDC Select (TR153) are not yet being grown for the commercial market. Production is limited to quantities required for testing and market development.

## Recommended Six-Row Barley Varieties

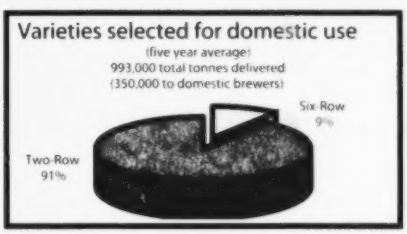
| VARIETY | DOMESTIC | EXPORT | MARKET DEMAND |
|---|---|---|---|
| Legacy[1,2,3,5] | Growing | Growing | Increasing Demand |
| Excel | Established | Established | Declining Demand |
| Tradition[1,2,3] | Limited | Growing | Increasing Demand |
| Robust | No Market | Limited | Declining Demand |
| CDC Battleford[4] | Limited | No Market | Increasing Demand |

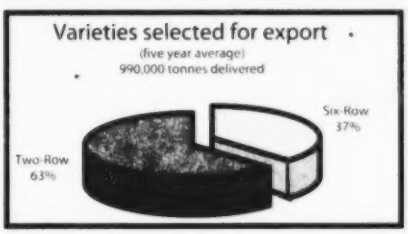
CDC Tisdale (BT462), CDC Springside (BT478), CDC Clyde (BT490) and CDC Laurence (BT494) are not yet being grown for the commercial market. Production is limited to quantities required for testing and market development.

"Domestic" as used in this publication, means barley selected for domestic processing into malt to supply domestic brewers as well as for malt destined for export. iExporti is that malting barley designated for markets outside of Canada including the US, shipped as unmalted grain.

***The CMBTC recommends the use of Certified seed to ensure varietal purity and to increase opportunity for selection.***

The following companies have Pedigreed seed distribution rights for those varieties that are footnoted:
1- (Agricore United); 2- (BARI-Canada); 3 - (FPS); 4 - (SeCan); 5 - (SWP).




CMBTC Members: A.C. Toepfer Canada, Agricore United, Busch Agricultural Resources-Canada, Canadian Wheat Board, Canadian Grain Commission, Canadian International Grains Institute, Cargill AgHorizons, James Richardson International, Parrish & Heimbecker, FarmPure Seeds, the Public Plant Breeders, Saskatchewan Wheat Pool Inc., Rahr Malting Canada, SeCan.

Questions? Call your selector, seed company, grain handling company or the Canadian Wheat Board, or contact the CMBTC at 204-984-4399 (cmbtc@cmbtc.com)

# Feed and Food Barley

Main characteristics of varieties

106-04447/

| Category and Variety | Years Tested | 2 or 6 Row | Rough or Smooth Awns | Yield as % of AC Metcalfe Area 1 | Area 2 | Area 3 | Area 4 | Relative Maturity* | Straw ‡ | Lodging | Net Blotch | Scald | Resistance to: Loose Smut | Other Smuts | Root Rot | Stem Rust | Fusarium Head Blight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Feed** | | | | | | | | | | | | | | | | | |
| CDC Bold | 7 | 2 | R | 113 | 110 | 111 | 113 | L | SD | G | P | F | P | VG | G | G | VP |
| Conlon | 1 | 2 | R | -- | 95 | 85 | -- | M | N | G | F | P | P | F | G | G | G |
| CDC Cowboy | 1 | 2 | R | -- | 103 | -- | -- | L | N | F | G | P | P | VG | F | G | G |
| CDC Dolly | 11 | 2 | R | 103 | 103 | 104 | 102 | M | N | G | P | G | P | G | F | G | F |
| CDC Fleet § | 11 | 2 | R | 88 | 89 | 89 | 89 | VE | N | VG | F | F | P | VP | P | G | F |
| CDC Helgason | 7 | 2 | R | 107 | 104 | 105 | 102 | M | N | G | G | P | VG | G | F | F | P |
| McLeod | 3 | 2 | R | -- | 110 | 119 | -- | M | N | G | P | P | P | VG | F | P | VP |
| Niobe | 6 | 2 | R | -- | 100 | 104 | 108 | M | N | F | F | P | P | G | P | G | P |
| Ponoka | 4 | 2 | R | -- | 112 | 127 | -- | L | N | G | F | G | VG | VG | F | P | F |
| Rivers | 5 | 2 | R | 105 | 105 | 111 | 102 | M | N | G | VG | P | VG | VG | G | G | F |
| CDC Trey | 5 | 2 | R | -- | 105 | 109 | 113 | M | N | VG | VG | P | P | VG | F | G | F |
| Xena | 7 | 2 | R | 112 | 112 | 114 | 113 | M | N | G | F | P | P | VG | F | G | F |
| CDC Earl | 10 | 6 | R | 99 | 111 | 110 | 120 | L | SD | VG | G | F | P | G | G | G | VP |
| AC Harper | 11 | 6 | S | 104 | 104 | 106 | 101 | M | N | G | F | G | P | F | F | F | VP |
| Kasota § | 8 | 6 | S | 97 | 106 | 109 | 108 | E | SD | G | F | G | P | G | P | G | VP |
| Lacey | 4 | 6 | S | 108 | 99 | 98 | -- | M | N | G | F | P | P | G | G | G | VP |
| AC Lacombe | 11 | 6 | S | 98 | 110 | 110 | 102 | M | N | G | F | F | P | VG | F | G | VP |
| Mahigan § | 8 | 6 | S | 106 | 112 | 114 | 115 | E | SD | VG | F | G | P | G | P | G | VP |
| Manny | 4 | 6 | S | -- | 114 | 111 | -- | M | N | F | F | VG | P | VG | P | P | VP |
| Niska | 6 | 6 | S | 105 | 120 | 123 | 129 | L | SD | F | P | P | P | G | P | G | VP |
| AC Rosser | 11 | 6 | S | 112 | 116 | 115 | 115 | M | N | G | F | VP | P | VG | G | G | VP |
| Trochu | 6 | 6 | S | 104 | 105 | 107 | 117 | M | N | F | P | F | P | G | G | G | P |
| Vivar | 6 | 6 | R | 114 | 117 | 112 | 131 | L | SD | G | F | P | F | G | F | G | VP |
| **Hulless** | | | | | | | | | | | | | | | | | |
| CDC Freedom | 9 | 2 | R | 89 | 91 | 90 | 89 | M | N | G | F | P | -- | G | P | G | G |
| CDC Gainer | 10 | 2 | R | 84 | 87 | 88 | 89 | M | N | F | F | F | P | F | F | G | F |
| HB 805 | 5 | 2 | R | 95 | 96 | 97 | 93 | L | N | F | F | P | F | G | F | F | F |
| CDC McGwire | 8 | 2 | R | 96 | 99 | 99 | 99 | M | N | G | VG | F | P | G | G | F | F |
| AC Bacon | 9 | 6 | R | 89 | 95 | 95 | 98 | M | N | G | P | F | P | F | F | G | G |
| Peregrine | 7 | 6 | R | 68 | 70 | 75 | 75 | M | SD | VG | F | F | P | P | G | G | VP |

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Disease resistance, straw strength and maturity are more critical when barley is grown under irrigation. Growers should select early, strong-strawed, disease resistant varieties and should consider semi-dwarf varieties.

## Feed and Food Barley (cont'd)

### General Comments

Of the current two-row varieties, new varieties such as **Rivers, CDC Trey** and **CDC McGwire** have good field resistance to all races of net blotch. Therefore, growers who must plant barley on barley stubble should select the above mentioned varieties.

Most of the available varieties are susceptible to one or more types of smut. Therefore, seed should be treated on a regular basis.

Harvesting grain over 16 percent moisture and then using aeration bins for drying can lead to sprouting and embryo death. Seed with reduced germination is undesirable for seeding or malting.

Two-row barley varieties are generally more resistant to shattering than six-row varieties.

## Oat

Main characteristics of varieties

| | Years | --Yield as % of Calibre-- Area | Area | Test Weight | % | % | Relative | | Resistance to | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Variety | Tested | 1 & 2 | 3 & 4 | (g/0.5L) | Hulless | Plump | Maturity* | Lodging | Stem Rust | Leaf Rust | Smut |
| Calibre | 15 | 100 | 100 | 250 | 22.9 | 44 | M | G | VP | VP | P |
| AC Assiniboia | 11 | 97 | 95 | 240 | 22.9 | 74 | M | VG | F | F | VG |
| SW Betania | 3 | 107 | 110 | 250 | 21.4 | 76 | L | G | VP | F | VG |
| CDC Boyer | 11 | 102 | 100 | 236 | 22.6 | 81 | E | G | F | F | P |
| CDC Dancer | 7 | 101 | 101 | 257 | 19.2 | 80 | M | G | F | F | VG |
| Derby | 13 | 101 | 103 | 251 | 22.2 | 74 | M | G | VP | VP | P |
| Furlong | 6 | 102 | 107 | 250 | 20.4 | 87 | L | G | F | F | G |
| Kaufmann § | 7 | 98 | 96 | 250 | 22.1 | 85 | L | F | F | F | VG |
| Leggett | 4 | 106 | 112 | 261 | 21.4 | 81 | L | G | F | VG | VG |
| Lu | 4 | 102 | 107 | 252 | 24.4 | 54 | VE | G | VP | VP | G |
| AC Morgan | 9 | 107 | 110 | 242 | 24.2 | 63 | L | VG | VP | VP | F |
| CDC Orrin | 6 | 107 | 111 | 257 | 22.5 | 81 | L | G | VP | VP | VG |
| CDC Pacer § | 9 | 106 | 106 | 245 | 23.7 | 71 | M | G | VP | VP | F |
| Pinnacle | 8 | 114 | 110 | 245 | 23.1 | 80 | VL | G | F | F | VG |
| Ronald | 7 | 97 | 100 | 253 | 21.8 | 62 | L | VG | F | F | VG |
| CDC Sol-Fi | 3 | 93 | 95 | 241 | 23.0 | 52 | M | F | VP | VP | G |
| Triple Crown | 10 | 102 | 107 | 238 | 24.7 | 67 | L | VG | VP | P | P |
| CDC Weaver | 4 | 107 | 115 | 249 | 18.6 | 82 | L | G | F | F | VG |

* Maturity Rating M = 96 days

### Additional Information:

Leaf rust races capable of attacking most varieties except **Leggett** are increasing in southeast Saskatchewan. Early seeding will reduce the likelihood of severe infection.

**AC Assiniboia** and **Furlong** have brown hulls.

### Forage Oat

**CDC Baler, CDC Bell**, and **Murphy** are annual forage oat varieties available for forage production in Saskatchewan.

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**Boudrias, Bullion, AC Gwen**, and **Lee Williams** are hulless varieties available for production in Saskatchewan. The hull is part of normal oat yield, thus hulless types yield less. They are difficult to handle and should be stored at less than 12% moisture.

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Two-row barley varieties are generally more resistant to shattering than six-row varieties.

## Oat

Main characteristics of varieties

| | Years Tested | Yield as % of Calibre Area 1 | Area 2 | Test Weight kg/hL | Hulless | Plump | Relative Maturity* | Lodging | Resistance to Stem Rust | Leaf Rust | Smut |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calibre | 15 | 100 | 100 | 250 | 22.9 | 44 | M | G | VP | VP | P |
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| CDC Dancer ♣ | 7 | 101 | 101 | 257 | 19.2 | 80 | M | G | F | F | VG |
| Derby | 13 | 101 | 103 | 251 | 22.2 | 74 | M | G | VP | VP | P |
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| Lu | 4 | 102 | 107 | 252 | 24.4 | 54 | VE | G | VP | VP | G |
| AC Morgan | 9 | 107 | 110 | 242 | 24.2 | 63 | L | VG | VP | VP | F |
| CDC Orrin ♣ | 6 | 107 | 111 | 257 | 22.5 | 81 | L | G | VP | VP | VG |
| CDC Pacer § | 9 | 106 | 106 | 245 | 23.7 | 71 | M | G | VP | VP | F |
| Pinnacle ♣ | 8 | 114 | 110 | 245 | 23.1 | 80 | VL | G | F | F | VG |
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| Triple Crown ♣ | 10 | 102 | 107 | 238 | 24.7 | 67 | L | VG | VP | P | P |
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# Malting Barley

Producers who sow malting barley varieties are generally hoping to capture the malt premium. In addition to the many quality factors that determine suitability for malt, such as high germination, seed vigour, plump kernels, etc., low to moderate protein levels are also desired. The desired protein range is generally between 10.5% and 13%. Protein levels outside this range can cause problems in the malting and brewing process. High protein levels, for example, will reduce the amount of fermentable material (malt extract), and can cause brewing issues such as cloudiness in the beer. In general, low protein is better than high protein, and marketers are willing to pay for it.

For the 2005-06 crop year, producers can receive protein related price premiums for designated two-row malting barley (see table below). Producers should be aware that not all grain handling companies are participating in the program. Please contact your local elevator, malting company or the Canadian Wheat Board (1-800-275-4292, www.cwb.ca) for more details. The protein premium will be based on a protein test of the delivered sample, subject to third party verification, and payment will be made within 30 days of delivery.

**Protein Payment Schedule on Two-Row Malting Barley for 2005-06**

| Protein Level (%) | Price adjustment ($/tonne) |
|---|---|
| 12.6 | 0 |
| 12.5 | 0.60 |
| 12.4 | 0.90 |
| 12.3 | 1.20 |
| 12.2 | 1.50 |
| 12.1 | 1.80 |
| 12.0 | 2.10 |
| 11.9 | 2.40 |
| 11.8 | 2.70 |
| 11.7 | 3.00 |
| 11.6 | 3.30 |
| 11.5 | 3.60 |
| 11.4 | 3.90 |
| 11.3 | 4.20 |
| 11.2 | 4.50 |
| 11.1 | 4.80 |
| 11.0 | 5.10 |
| 10.9 and below | 5.40 |

## General Recommendations for Malting Barley Production

### Fertility

A well balanced fertility program is important for producing good yields and acceptable quality. Provided other factors are not limiting, protein and yield are mostly determined by the amount of precipitation and available nitrogen. Given the same amount of available nitrogen, high levels of precipitation will lower protein, while drier conditions will result in higher protein.

The dilemma for producers is to balance the nitrogen requirement that will maximize yield, while maintaining low protein levels. Protein content and yield will increase with increased rates of nitrogen; however, protein increases at a slower rate. In determining target yield, producers should rely on soil test recommendations that take into consideration soil moisture levels and average growing season precipitation for their region.

### Timing of Seeding

Another consideration that can affect protein is the timing of seeding. Early seeding is generally recommended for a number of reasons. Early seeded crops tend to mature before soil moisture levels become depleted. This will assist the plant to develop plump and uniform kernels. The other advantage of early seeding is that the harvest can generally occur during dry conditions, avoiding cool wet falls that increase the likelihood of weathering and pre-harvest sprouting.

### Variety Selection

Selecting a variety for its agronomic performance and marketing potential is the first step in producing a marketable malt barley crop. The Canadian Malting Barley Technical Centre provides a list of recommended malting barley varieties (see VR8). Additionally, producers should contact grain and malting companies to explore market potential for the various varieties.

### Seed

The seed lot should be true to variety, have high germination with strong vigour, and be free of disease and weed seeds. Using Certified Seed, and possibly treating the seed if sowing into cool soils, will get the crop off to a good start.

### Field Selection

Select relatively uniform fields to obtain even maturity. If patchiness does occur, these areas should be harvested separately. Use proper crop rotations to lessen disease pressures and avoid volunteer seed issues.

### Seeding Rate and Depth

Depending on the region, the target plant density should be 20 to 25 plants per sq. foot (215 – 270 plants per sq. metre). Producers must account for the rate of germination and seedling mortality. Since malting barley generally has a high test weight with plump kernels, the seeder should be calibrated accordingly. The seeding rate calculator on the Alberta Agriculture, Food and Rural Development website provides an easy method to determine your seeding rate. (www.agric.gov.ab.ca/app19/calc/crop/seedcalculator.jsp?crop=BARLEY)

Seeding depth should be approximately 1.5 – 1.75 inches (3.8 – 4.5 cm). Although having the seed in contact with moist soil is important, placing the seed below 2 inches (5 cm) is not recommended. Deep seeding can result in weak plants, reduced emergence and vulnerability to root and seedling diseases.

### Disease Control

Fields should be monitored for leaf diseases. If economically warranted, registered fungicides will help minimize yield loss and maintain kernel plumpness. The timing of fungicide application is critical – follow the label carefully.

### Harvesting and Handling

Both straight combining and swathing can be used to produce marketable malting barley. Swathing should be delayed until the moisture content is below 30%. At this stage, the barley kernel is difficult to dent with your thumbnail. Six-row barley is more susceptible to shattering than two-row varieties. Most malting varieties, especially two-rows, are susceptible to sprouting.

Combining can begin at 16% moisture if aeration is available. Producers should not use heat when aerating malting barley, as it can cause the loss of germination. If the moisture content falls below 13.5%, peeling during combining and handling is more likely. Therefore, producers should adjust the combine (cylinder/rotor speed and concave clearance) and handling equipment so that peeling and breakage is minimized. Maltsters prefer kernels with a small piece of the awn intact. Storage conditions should maintain low moisture levels until delivery. Handling should be minimized to reduce peeling and broken kernels.

With a little luck from the weather, these recommendations will help produce high quality malting barley.

# OTHER CROPS

**Canary Seed**

The seed of annual canarygrass, more commonly called canary seed, is used as food for caged and wild birds. Five varieties are registered in Canada. **Elias, Keet** and **Cantate** are similar in yield, but **Keet** and **Cantate** are earlier maturing and more resistant to lodging. Seeds and plants of **CDC Maria** and **CDC Togo** do not have the small sharp hairs that cause irritation when canary seed is threshed and handled. **CDC Maria** and **CDC Togo** have higher test weights compared to pubescent cultivars. **CDC Togo** is higher yielding than **CDC Maria** and has heavier seed. Canary seed plants have a dense, shallow root system and growing the crop on sandy soils is therefore not recommended. Canary seed may be grown successfully on stubble, providing adequate moisture is available for rapid germination and emergence. The maturity requirements are similar to wheat.

Planting should occur at the same optimum date as spring wheat. Early seeding may lower yields in some cases. The recommended seeding rate is 34 kg/ha (30 lb/ac) (germination greater than 85 per cent). Plant the seed 3.5 to 5 cm deep into a firm seedbed. Fertilizer requirements are similar to those for cereal crops.

Canary seed is subject to damage by English grain aphid and bird cherry-oat aphid. Aphid populations build up rapidly on leaves, stems and head of the plant in August and may require an insecticide application to prevent yield loss. Information from the United States indicates that infestations of 10 to 20 aphids on 50 per cent of the stems prior to soft dough stage may cause enough damage to warrant insecticide application. The aphids often hide in the dense head of the canary seed plant. Damage may occur at populations below these levels.

Canary seed leaf mottle is a foliar disease that can cause yield losses. Leaf mottle is caused by a fungus, *Septoria triseti*, that only affects canary seed. The disease is inconspicuous at early stages because there is little visual contrast between healthy and diseased leaf area. Stubble borne inoculum is the source of infection, thus crop rotation is key in limiting the severity of leaf mottle.

Canary seed should not be seeded on land that was treated with trifluralin or ethalfluralin the previous year. Canary seed is resistant to shattering. It may be straight-combined or swathed when fully mature.

For more information on canary seed, consult the SAF publication, *Canary Seed in Saskatchewan.*

**Safflower**

Safflower is an annual oilseed or birdseed crop which can be grown successfully in the Brown soil zone. Safflower must be sown early (late April).

**Saffire** matures in about 120 days. Seed should be planted shallow but into a firm, moist seedbed at about 30 kg/ha (27 lbs/ac). **Saffire** has moderate resistance to Sclerotinia head rot and Alternaria leaf spot. Contract production is advised.

**AC Sunset** has the earliness of **Saffire** combined with higher oil content and resistance to Sclerotinia head rot.

**Buckwheat**

Buckwheat is sensitive to high temperatures and dry weather conditions in the blossom stage which can reduce seed set and yields. New self-pollinated varieties are being released. Buckwheat is very susceptible to frost at all stages of growth. Delayed seeding is advisable to avoid spring frost.

**Caraway**

Caraway is a biennial spice crop, producing seed in the second year and sometimes in the third year. Seedlings are small, slow in developing and compete poorly with weeds. The crop is usually swathed because of its indeterminate growth habit and seed shattering. For more information, consult the SAF publication, *Caraway in Saskatchewan.*

**Fenugreek**

Fenugreek is a leguminous spice crop adapted to dryland conditions in the Dark Brown and Brown soil zones. The crop should be seeded early to avoid yield and quality loss from fall frost. Contract production is advisable, as markets are limited. For more information, consult the SAF publication, *Fenugreek in Saskatchewan.*

**Coriander**

Coriander is an annual spice crop. Seedlings are small, slow to develop, and compete poorly with weeds. The large seeded type is earlier maturing than the small seeded type. **CDC Major** is a large-seeded coriander variety and **CDC Minor** is a small-seeded variety. The crop is usually straight-cut to avoid wind damage in swaths. For more information, consult the SAF publication, *Coriander in Saskatchewan.*

# SEED FACTS

**Pedigreed Seed**
Use certified seed regularly. This assures that the seed has high genetic purity, high germination and is relatively free from weeds and other crop seeds.

**Reuse of Hybrid Variety Seed**
Seed grown from a hybrid variety (regardless of crop or variety) should not be reused since a 20 to 25% yield reduction can occur in the next generation. This reduction is due to loss of hybrid vigour and possible occurrence of male-sterile plants. Lack of uniformity for maturity and quality traits will also occur.

**Seed Cleaning**
Seed should be cleaned carefully to remove weed seeds, trash, small or broken kernels, ergot and sclerotia. Not all seed-cleaning plants are equipped to clean grain to seed standards.

**Seed Treatment**
Various fungicides have been registered for the control of seedling diseases caused by soil- and seed-borne pathogens.

Use of seed from cereal crops infected with *Fusarium* may result in poor emergence. Such seed should be treated with a registered fungicide before planting. Use of infected seed may introduce *Fusarium* diseases into unaffected areas.

Smuts that attack wheat, barley, oat and rye can be controlled by seed treatment. If seed from a crop in which bunt or smut was observed must be used for seed, seed treatment should be considered. If the presence of smut is uncertain, varieties rated VERY POOR should be treated every year, those rated POOR every second year and those rated FAIR every third year.

Only systemic fungicides will control true loose smut of barley and wheat, and stem smut of rye. Pathogens causing the other types of smut (covered, false loose, oat smut and bunt) are carried on the outside of the seed and can be controlled by non-systemic seed treatments.

The virulent form of blackleg of canola is widespread in Saskatchewan. Seed treatment with a recommended fungicide can reduce the level of disease. Use of canola seed commercially coated with an appropriate seed treatment is a convenient alternative to on-farm seed treatment.

Wireworms, which attack all grain crops, and flea beetles, which attack canola and mustard, can be controlled by seed treatment with insecticides.

Read the label carefully before using any seed treatment or insecticide. Information on their use and recommended rates is found in the *Guide to Crop Protection 2006*. Carryover stocks of treated seed should be tested for germination before using. Treated seed must not be delivered to an elevator or used for feed.

**Seed-borne diseases of pulses**
Pulse growers should use seed that has been tested for seed-borne diseases such as ascochyta, anthracnose and botrytis. Tolerances for seed infection vary with the pulse crop, the disease, weather conditions of the region and the availability of a seed treatment. If infection of the crop from sources other than seed is likely, using seed with low infection levels becomes less important.

In regions with frequent rainfall and high humidity, tolerances will be lower. Thus, for ascochyta blight of lentil, use of seed with up to 5% seed infection is acceptable in the Brown and Dark Brown Soil Zones, but 0% is desirable in the Black Soil Zone. A seed treatment for ascochyta-infected lentil seed is available and is recommended if seed infection levels approach 5%. In pea, up to 10% seed infection with ascochyta is acceptable. In chickpea, 0% ascochyta seed infection is recommended because of the high rate of transmission of the disease from the seed to the emerging seedlings and its highly destructive nature.

**Ergot**
Ergot attacks all varieties of rye, triticale, wheat and barley, as well as most common grass species. Oat is rarely attacked and all broadleaf species are immune. Grain containing 0.1% ergot is considered poisonous and should not be used for food. Details of this disease are found in *Ergot of Grains and Grasses* (AAFC Publ. 1438).

**Seed Inoculation**
Legume crops obtain much of their nitrogen (N) requirement by forming a symbiotic association with soil bacteria called Rhizobium. These bacteria colonize the roots to form structures called nodules where they fix nitrogen for the legume plant. To enhance nitrogen fixation, the legume crop seed should be inoculated. **Use the proper strain of bacteria specific to that crop.** For further details, consult the *Pulse Production Manual* (Saskatchewan Pulse Growers).

**Damp and Frozen Seed**
Seed which is stored damp or tough may be low in germination. Grain which will be used for seed should be dried, if necessary, soon after harvest. The drying temperature should be below 37C for batch driers and 43C for recirculating and continuous driers. Frozen grain should always be tested for germination by a seed-testing laboratory before planting. Such grain will frequently produce a high percentage of abnormal seedlings.

**Production Notes**
All wheat classes, including durum and triticale, are susceptible to wheat midge. Farmers in infested areas should be prepared to spray fields with recommended insecticides if necessary. Refer to the SAF publication *Orange Wheat Blossom Midge*. Residue of infected crops may harbour disease pathogens. Seeding into stubble of the same crop kind will increase disease risk, particularly in higher rainfall areas. Maintain a diverse crop rotation.

# Pulse Crops

## 2005 Regional Variety Trials

In 2005, Saskatchewan Pulse Growers provided a one-year grant of approximately $101,000 to fill an urgent need for pulse crop regional variety testing in Saskatchewan.

The Crop Development Centre (CDC) collaborated with researchers already onsite at several locations (such as the Agri-ARM sites) in order to make best use of project dollars. The project collected data on varieties from the CDC program as well as Cebeco, Svalof Weibull, Agriculture & Agri-Food Canada (AAFC) and other breeding programs. This project augments data from Co-op Tests.

## Methodology

Field pea, lentil, chickpea, and dry bean variety trials were conducted at 8-14 locations per crop in their target areas of adaptation in Saskatchewan. The number of entries per trial was 26 for pea, 24 for lentil, 24 for chickpea, and 18 for dry bean. Trials were set up and managed by the pulse crop breeding program at the CDC.

## Lentil

Main characteristics of varieties

| Market Class | Variety | Years Tested* | Yield as % of Laird | | Height (cm) | Days to Flower | Maturity Rating | Resistance to | | Cotyledon Colour | Seed Wt (g/1000) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Area 1 & 2 | Area 3 & 4 | | | | Ascochyta Blight | Anthracnose Race 1 | | |
| **Large green** | **Laird** | 11 | 100 | 100 | 41 | 53 | VL | VP | VP | yellow | 67 |
| | CDC Glamis | 10 | 110 | 108 | 39 | 54 | VL | G | VP | yellow | 60 |
| | CDC Grandora | 9 | 107 | 109 | 40 | 53 | VL | G | VP | yellow | 69 |
| | CDC Plato | 7 | 129 | 120 | 38 | 52 | ML | G | P | yellow | 62 |
| | CDC Sovereign | 9 | 119 | 111 | 40 | 52 | L | G | P | yellow | 66 |
| | CDC Sedley | 8 | 115 | 110 | 39 | 51 | M | F | VP | yellow | 68 |
| **Medium green** | CDC Meteor | 5 | 142 | 132 | 34 | 50 | M | G | VP | yellow | 51 |
| | CDC Richlea | 10 | 130 | 115 | 35 | 50 | M | VP | VP | yellow | 51 |
| | CDC Vantage | 10 | 128 | 120 | 33 | 49 | M | G | VP | yellow | 52 |
| **Small green** | CDC Milestone | 11 | 134 | 127 | 31 | 49 | E | G | VP | yellow | 37 |
| | CDC Viceroy | 6 | 137 | 146 | 34 | 49 | E | G | G | yellow | 33 |
| | Eston | 10 | 113 | 111 | 30 | 48 | E | VP | VP | yellow | 33 |
| **French green** | CDC LeMay | 6 | 122 | 115 | 35 | 48 | E | F | VP | yellow | 32 |
| **Small red** | CDC Blaze | 7 | 113 | 108 | 30 | 47 | E | G | P | red | 34 |
| | CDC Redberry | 5 | 136 | 143 | 34 | 50 | E | G | G | red | 42 |
| | CDC Redcap § | 8 | 119 | 117 | 30 | 49 | E | G | F | red | 35 |
| | CDC Rouleau | 5 | 135 | 142 | 33 | 52 | M | G | G | red | 37 |
| | Crimson | 7 | 112 | 112 | 29 | 49 | E | VP | VP | red | 35 |
| **Extra small red** | CDC Robin | 8 | 118 | 113 | 30 | 49 | E | G | G | red | 30 |
| | CDC Rosetown | 5 | 129 | 134 | 31 | 52 | E | G | G | red | 31 |

* Co-op and Regional Trials in Saskatchewan since 1995. Direct comparisons to Laird

## Additional Information:

**Indianhead** (Beluga) lentil is a black-seeded variety for specialty markets and green manure use. **CDC Matador** is a brown-seeded variety with yellow cotyledons. **Redchief** is a large red lentil with green seed coat.

Seed supplies are very limited for **CDC Meteor** and **CDC Rosetown**. Seed supply may be somewhat limited for **CDC Plato, CDC Viceroy, CDC Rouleau** and **CDC Redberry.**

# Field Pea

## Main characteristics of varieties

| Variety | Yield index (Alberta) | Yield index (South) | Yield index (Sask. Co-op & Irrigation) | Leaf Type ▼ | Relative Maturity | Seed Weight (g/1000 seeds) | Resistance to: Mycosphaerella Blight | Resistance to: Powdery Mildew | Resistance to: Seed Coat Breakage | Resistance to: Lodging | Resistance to: Bleaching | Seed Coat Dimpling ♣ | Green Seed Coats ♦ | Seed Weight g/1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Yellow** | | | | | | | | | | | | | | |
| Alfetta | 9 | 100 | 100 | 100 | SL | M | 80 | P | P | F | F | n/a | F | G | 290 |
| Carneval | 7 | 89 | 85 | 107 | SL | M | 75 | F | P | F | G | n/a | | | 230 |
| CDC Bronco | 6 | 118 | 111 | 107 | SL | M | 75 | F | VG | G | G | n/a | G | G | 230 |
| CDC Golden | 6 | 117 | 109 | 112 | SL | M | 85 | F | VG | G | G | n/a | G | G | 230 |
| CDC Handel | 5 | 112 | 99 | 112 | SL | L | 75 | P | VG | G | F | n/a | G | F | 220 |
| CDC Mozart | 9 | 114 | 107 | 111 | SL | M | 70 | F | VG | G | F | n/a | G | F | 220 |
| CDC Minuet | 5 | 109 | 108 | -- | SL | M | 70 | F | VG | F | F | n/a | G | F | 190 |
| Cutlass | 6 | 114 | 109 | 105 | SL | M | 75 | F | VG | F | G | n/a | F | G | 220 |
| Delta | 4 | 101 | 98 | -- | SL | E | 70 | P | P | G | F | n/a | | | 250 |
| DS Admiral | 5 | 101 | 110 | 96 | SL | E | 80 | F | VG | G | G | n/a | G | G | 240 |
| DS Stalwarth | 4 | 97 | 95 | 103 | SL | M | 80 | P | VG | G | F | n/a | G | G | 240 |
| Eclipse | 7 | 110 | 107 | 108 | SL | M | 80 | F | VG | G | G | n/a | F | G | 250 |
| Miser | 5 | 108 | 113 | 91 | SL | M | 80 | F | VG | G | F | n/a | G | G | 190 |
| SW Carousel O | 4 | 108 | 113 | 112 | SL | E | 85 | F | VG | F | G | n/a | G | G | 250 |
| SW Circus | 4 | 104 | 116 | 108 | SL | E | 75 | F | P | F | G | n/a | F | G | 220 |
| SW Capri | 4 | 102 | 108 | -- | SL | E | 75 | F | P | F | G | n/a | F | G | 210 |
| SW Marquee O | 3 | 114 | 103 | 119 | SL | M | 80 | F | VG | G | G | n/a | G | G | 220 |
| SW Midas | 4 | 109 | 97 | 109 | SL | E | 80 | F | VG | G | G | n/a | G | G | 220 |
| SW Prize | 4 | 100 | 97 | -- | SL | E | 80 | F | P | G | G | n/a | G | G | 240 |
| SW Salute | 5 | 111 | 109 | 85 | SL | E | 75 | P | VG | F | F | n/a | F | F | 220 |
| SWING | 5 | 95 | 99 | -- | SL | E | 75 | F | P | VG | G | n/a | G | G | 250 |
| Topeka | 6 | 112 | 103 | 88 | SL | E | 65 | F | VG | G | F | n/a | G | G | 260 |
| Tudor O | 4 | 106 | 99 | 109 | SL | M | 80 | P | VG | F | G | n/a | G | F | 270 |
| **Green** | | | | | | | | | | | | | | |
| Bluebird | 3 | 98 | 99 | 94 | SL | E | 65 | F | VG | G | F | F | F | n/a | 250 |
| Camry O | 4 | 111 | 96 | 102 | SL | M | 65 | F | VG | F | G | F | G | n/a | 260 |
| CDC Montero | 6 | 99 | 95 | 91 | SL | M | 80 | F | VG | G | F | F | F | n/a | 230 |
| CDC Sage | 4 | 106 | 94 | 96 | SL | M | 80 | F | VG | G | G | G | F | n/a | 220 |
| CDC Striker | 6 | 100 | 108 | 104 | SL | M | 80 | F | P | VG | G | G | G | n/a | 230 |
| Cooper O | 4 | 117 | 103 | 112 | SL | L | 80 | F | VG | F | G | G | G | n/a | 270 |
| Cruiser | 4 | 91 | 87 | -- | SL | M | 75 | F | P | VG | F | G | G | n/a | 200 |
| Madoc | 6 | 96 | 99 | 104 | SL | E | 70 | P | P | F | F | F | F | n/a | 250 |
| Majoret | 5 | 79 | 75 | 95 | SL | M | 60 | P | P | G | G | F | | n/a | 250 |
| Millenium | 5 | 103 | 97 | -- | SL | E | 65 | P | P | F | F | F | F | n/a | 260 |
| Nessie | 4 | 101 | 105 | 97 | SL | E | 70 | F | P | F | G | F | F | n/a | 270 |
| Nitouche | 9 | 94 | 97 | 96 | SL | M | 75 | F | P | G | G | G | F | n/a | 250 |
| Scuba | 4 | 82 | 87 | -- | SL | E | 80 | P | P | F | F | F | F | n/a | 230 |
| Stratus | 7 | 114 | 106 | 105 | SL | M | 70 | F | VG | G | F | F | G | n/a | 270 |
| SW Parade | 5 | 99 | 91 | 102 | SL | M | 70 | F | VG | G | F | F | G | n/a | 220 |
| Toledo | 4 | 87 | 95 | -- | SL | M | 70 | P | P | G | G | F | F | n/a | 280 |
| Venture | 4 | 97 | 88 | -- | SL | E | 75 | P | P | G | F | F | F | n/a | 220 |
| Vortex | 5 | 103 | 106 | 98 | SL | E | 75 | P | P | F | F | G | F | n/a | 190 |
| **Maple** | | | | | | | | | | | | | | |
| CDC Acer | 3 | 109 | 100 | -- | SL | L | 60 | F | VG | G | F | n/a | G | F | 170 |
| Courier | 4 | 98 | 92 | 79 | SL | M | 75 | F | P | F | P | n/a | G | F | 210 |
| Whero | 3 | 60 | 57 | -- | N | L | 110 | P | P | G | P | n/a | | n/a | 210 |
| **Silage** | | | | | | | | | | | | | | |
| CDC Sonata | 4 | 111 | 100 | -- | N | L | 85 | F | VG | F | F | n/a | F | F | 220 |
| Trapper | 7 | 74 | 73 | -- | N | L | 95 | P | P | F | P | n/a | | | 140 |
| Victoria | 7 | 80 | 77 | -- | N | M | 85 | P | P | F | P | n/a | | | 190 |
| 40-10 | 2 | 91 | 100 | -- | N | L | 100 | P | P | F | P | n/a | G | | 170 |

° Co-op and regional trials in Saskatchewan ▼ N=normal leaf type; S=semi-leafless ♣ Seed coat dimpling: VG=0-5%; G=6-20%; F=21-50%

♦ Green seed coats: Good = 0-10%; Fair = 11-25%

Relative ratings for disease, seed coat breakage, lodging, bleaching (for green seed varieties), seed coat dimpling, and green seed coats (for yellow seed varieties): VG=very good; G=good; F=fair; P=poor; VP=very poor

### Additional Information:

For additional information, consult the Pulse Production Manual published by the Saskatchewan Pulse Growers.

# Pulse Crops

## 2005 Regional Variety Trials

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The Crop Development Centre (CDC) collaborated with researchers already onsite at several locations (such as the Agri-ARM sites) in order to make best use of project dollars. The project collected data on varieties from the CDC program as well as Cebeco, Svalof Weibull, Agriculture & Agri-Food Canada (AAFC) and other breeding programs. This project augments data from Co-op Tests.

## Methodology

Field pea, lentil, chickpea, and dry bean variety trials were conducted at 8-14 locations per crop in their target areas of adaptation in Saskatchewan. The number of entries per trial was 26 for pea, 24 for lentil, 24 for chickpea, and 18 for dry bean. Trials were set up and managed by the pulse crop breeding program at the CDC.

## Lentil

Main characteristics of varieties

| | | | ---Yield as % of Laird--- | | | | | ------Resistance to:------ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Market Class | Variety | Years Tested* | Area 1 & 2 | Area 3 & 4 | Height (cm) | Days to Flower | Maturity Rating | Ascochyta Blight | Anthracnose Race 1 | Cotyledon Colour | Seed Wt (g/1000) |
| **Large green** | Laird | 11 | 100 | 100 | 41 | 53 | VL | VP | VP | yellow | 67 |
| | CDC Glamis | 10 | 110 | 108 | 39 | 54 | VL | G | VP | yellow | 60 |
| | CDC Grandora | 9 | 107 | 109 | 40 | 53 | VL | G | VP | yellow | 69 |
| | CDC Plato | 7 | 129 | 120 | 38 | 52 | ML | G | P | yellow | 62 |
| | CDC Sovereign | 9 | 119 | 111 | 40 | 52 | L | G | P | yellow | 66 |
| | CDC Sedley | 8 | 115 | 110 | 39 | 51 | M | F | VP | yellow | 68 |
| **Medium green** | CDC Meteor | 5 | 142 | 132 | 34 | 50 | M | G | VP | yellow | 51 |
| | CDC Richlea | 10 | 130 | 115 | 35 | 50 | M | VP | VP | yellow | 51 |
| | CDC Vantage | 10 | 128 | 120 | 33 | 49 | M | G | VP | yellow | 52 |
| **Small green** | CDC Milestone | 11 | 134 | 127 | 31 | 49 | E | G | VP | yellow | 37 |
| | CDC Viceroy | 6 | 137 | 146 | 34 | 49 | E | G | G | yellow | 33 |
| | Eston | 10 | 113 | 111 | 30 | 48 | E | VP | VP | yellow | 33 |
| **French green** | CDC LeMay | 6 | 122 | 115 | 35 | 48 | E | F | VP | yellow | 32 |
| **Small red** | CDC Blaze | 7 | 113 | 108 | 30 | 47 | E | G | P | red | 34 |
| | CDC Redberry | 5 | 136 | 143 | 34 | 50 | E | G | G | red | 42 |
| | CDC Redcap § | 8 | 119 | 117 | 30 | 49 | E | G | F | red | 35 |
| | CDC Rouleau | 5 | 135 | 142 | 33 | 52 | M | G | G | red | 37 |
| | Crimson | 7 | 112 | 112 | 29 | 49 | E | VP | VP | red | 35 |
| **Extra small red** | CDC Robin | 8 | 118 | 113 | 30 | 49 | E | G | G | red | 30 |
| | CDC Rosetown | 5 | 129 | 134 | 31 | 52 | E | G | G | red | 31 |

* Co-op and Regional Trials in Saskatchewan since 1995. Direct comparisons to Laird

## Additional Information:

**Indianhead** (Beluga) lentil is a black-seeded variety for specialty markets and green manure use. **CDC Matador** is a brown-seeded variety with yellow cotyledons. **Redchief** is a large red lentil with green seed coat.

Seed supplies are very limited for **CDC Meteor** and **CDC Rosetown**. Seed supply may be somewhat limited for **CDC Plato, CDC Viceroy, CDC Rouleau** and **CDC Redberry.**

## Field Pea

Main characteristics of varieties

| Variety | Years Tested* | Yield as % of Alfetta: 1,2 & South 3 | Yield as % of Alfetta: North 3 & 4 | Yield as % of Alfetta: Irrigation | Leaf Type♥ | Relative Maturity | Vine Length (cm) | Resistance to: Mycosphaerella Blight | Resistance to: Powdery Mildew | Resistance to: Seed Coat Breakage | Resistance to: Lodging | Resistance to: Bleaching | Resistance to: Seed Coat Dimpling♣ | Resistance to: Green Seed Coat◆ | Seed Weight g/1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Yellow** | | | | | | | | | | | | | | | |
| Alfetta | 9 | 100 | 100 | 100 | SL | M | 60 | P | P | F | F | n/a | F | G | 290 |
| Carneval | 7 | 89 | 85 | 107 | SL | M | 75 | F | P | F | G | n/a | | | 230 |
| CDC Bronco | 6 | 118 | 111 | 107 | SL | M | 75 | F | VG | G | G | n/a | G | G | 230 |
| CDC Golden | 6 | 117 | 109 | 112 | SL | M | 85 | F | VG | G | G | n/a | G | G | 230 |
| CDC Handel | 5 | 112 | 99 | 112 | SL | L | 75 | P | VG | G | F | n/a | G | F | 220 |
| CDC Mozart | 9 | 114 | 107 | 111 | SL | M | 70 | F | VG | G | F | n/a | G | F | 220 |
| CDC Minuet | 5 | 109 | 108 | -- | SL | M | 70 | F | VG | F | F | n/a | G | F | 190 |
| Cutlass | 6 | 114 | 109 | 105 | SL | M | 75 | F | VG | F | G | n/a | F | G | 220 |
| Delta | 4 | 101 | 98 | -- | SL | E | 70 | P | P | G | F | n/a | | | 250 |
| DS Admiral | 5 | 101 | 110 | 96 | SL | E | 80 | F | VG | G | G | n/a | G | G | 240 |
| DS Stalwarth | 4 | 97 | 95 | 103 | SL | M | 80 | P | VG | G | F | n/a | G | G | 240 |
| Eclipse | 7 | 110 | 107 | 108 | SL | M | 80 | F | VG | G | G | n/a | F | G | 250 |
| Miser | 5 | 108 | 113 | 91 | SL | M | 80 | F | VG | G | F | n/a | G | G | 190 |
| SW Carousel ○ | 4 | 108 | 113 | 112 | SL | E | 85 | F | VG | F | G | n/a | G | G | 250 |
| SW Circus | 4 | 104 | 116 | 108 | SL | E | 75 | F | P | F | G | n/a | F | G | 220 |
| SW Capri | 4 | 102 | 108 | -- | SL | E | 75 | F | P | F | G | n/a | F | G | 210 |
| SW Marquee ○ | 3 | 114 | 103 | 119 | SL | M | 80 | F | VG | G | G | n/a | G | G | 220 |
| SW Midas | 4 | 109 | 97 | 109 | SL | E | 80 | F | VG | G | G | n/a | G | G | 220 |
| SW Prize | 4 | 100 | 97 | -- | SL | E | 80 | F | P | G | G | n/a | G | G | 240 |
| SW Salute | 5 | 111 | 109 | 85 | SL | E | 75 | P | VG | F | F | n/a | F | F | 220 |
| SWING | 5 | 95 | 99 | -- | SL | E | 75 | F | P | VG | G | n/a | G | G | 250 |
| Topeka | 6 | 112 | 103 | 88 | SL | E | 65 | F | VG | G | F | n/a | G | G | 260 |
| Tudor ○ | 4 | 106 | 99 | 109 | SL | M | 80 | P | VG | F | G | n/a | G | F | 270 |
| **Green** | | | | | | | | | | | | | | | |
| Bluebird | 3 | 98 | 99 | 94 | SL | E | 65 | F | VG | G | F | F | F | n/a | 250 |
| Camry ○ | 4 | 111 | 96 | 102 | SL | M | 65 | F | VG | F | G | F | G | n/a | 260 |
| CDC Montero | 6 | 99 | 95 | 91 | SL | M | 80 | F | VG | G | F | F | F | n/a | 230 |
| CDC Sage | 4 | 106 | 94 | 96 | SL | M | 80 | F | VG | G | G | G | F | n/a | 220 |
| CDC Striker | 6 | 100 | 108 | 104 | SL | M | 80 | F | P | VG | G | G | G | n/a | 230 |
| Cooper ○ | 4 | 117 | 103 | 112 | SL | L | 80 | F | VG | F | G | G | G | n/a | 270 |
| Cruiser | 4 | 91 | 87 | -- | SL | M | 75 | F | P | VG | F | G | G | n/a | 200 |
| Madoc | 6 | 96 | 99 | 104 | SL | E | 70 | P | P | F | F | F | F | n/a | 250 |
| Majoret | 5 | 79 | 75 | 95 | SL | M | 60 | P | P | G | G | F | | n/a | 250 |
| Millenium | 5 | 103 | 97 | -- | SL | E | 65 | P | P | F | F | F | F | n/a | 260 |
| Nessie | 4 | 101 | 105 | 97 | SL | E | 70 | F | P | F | G | F | F | n/a | 270 |
| Nitouche | 9 | 94 | 97 | 96 | SL | M | 75 | F | P | G | G | G | F | n/a | 250 |
| Scuba | 4 | 82 | 87 | -- | SL | E | 80 | P | P | F | F | F | F | n/a | 230 |
| Stratus | 7 | 114 | 106 | 105 | SL | M | 70 | F | VG | G | F | F | G | n/a | 270 |
| SW Parade | 5 | 99 | 91 | 102 | SL | M | 70 | F | VG | G | F | F | G | n/a | 220 |
| Toledo | 4 | 87 | 95 | -- | SL | M | 70 | P | P | G | G | F | F | n/a | 280 |
| Venture | 4 | 97 | 88 | -- | SL | E | 75 | P | P | G | F | F | F | n/a | 220 |
| Vortex | 5 | 103 | 106 | 98 | SL | E | 75 | P | P | F | F | G | F | n/a | 190 |
| **Maple** | | | | | | | | | | | | | | | |
| CDC Acer | 3 | 109 | 100 | -- | SL | L | 60 | F | VG | G | F | n/a | G | F | 170 |
| Courier | 4 | 98 | 92 | 79 | SL | M | 75 | F | P | F | P | n/a | G | F | 210 |
| Whero | 3 | 60 | 57 | -- | N | L | 110 | P | P | G | P | n/a | | n/a | 210 |
| **Silage** | | | | | | | | | | | | | | | |
| CDC Sonata | 4 | 111 | 100 | -- | N | L | 85 | F | VG | F | F | n/a | F | F | 220 |
| Trapper | 7 | 74 | 73 | -- | N | L | 95 | P | P | F | P | n/a | | | 140 |
| Victoria | 7 | 80 | 77 | -- | N | M | 85 | P | P | F | P | n/a | | | 190 |
| 40-10 | 2 | 91 | 100 | -- | N | L | 100 | P | P | F | P | n/a | G | | 170 |

* Co-op and regional trials in Saskatchewan

♥ **N**=normal leaf type, SL=semi-leafless

♣ Seed coat dimpling: VG=0-5%; G=6-20%; F=21-50%

◆ Green seed coats: Good = 0-10%; Fair = 11-25%

Relative ratings for disease, seed coat breakage, lodging, bleaching (for green seed varieties), seed coat dimpling, and green seed coats (for yellow seed varieties): VG=very good; G=good; F=fair; P=poor; VP=very poor

### Additional Information:

For additional information, consult the Pulse Production Manual published by the Saskatchewan Pulse Growers.

## Chickpea
### Characteristics of Kabuli and Desi varieties

| Variety | Yield as % of Sanford Area 1 | Yield as % of Sanford Area 2 | Leaf Type** | Ascochyta Blight | Height | Days to Flower | Days to Maturity | Seed Wt |
|---|---|---|---|---|---|---|---|---|
| Sanford | 9 | 100 | 100 | U | VP | 50 | 57 | VL | 415 |
| Amit (B-90) | 8 | 141 | 142 | F | F | 50 | 55 | L | 265 |
| CDC ChiChi | 5 | 117 | 117 | F | P | 45 | 53 | L | 385 |
| CDC Chico | 7 | 136 | 147 | F | P | 45 | 51 | M | 265 |
| CDC Diva | 4 | 104 | 117 | U | VP | 45 | 52 | L | 490 |
| CDC Frontier | 5 | 164 | 160 | F | F | 45 | 55 | L | 375 |
| CDC Xena | 9 | 117 | 127 | U | VP | 45 | 52 | L | 470 |
| CDC Yuma | 7 | 113 | 116 | F | P | 50 | 53 | VL | 410 |
| Dwelley | 3 | 86 | 88 | U | VP | 45 | 57 | VL | 490 |
| Evans | 4 | 90 | 98 | U | VP | 50 | 53 | VL | 430 |

| Variety | Yield as % of Myles Area 1 | Yield as % of Myles Area 2* | Leaf Type** | Ascochyta Blight | Height | Days to Flower | Days to Maturity | Seed Wt | Seed Shape◆ | Seed Coat♥ |
|---|---|---|---|---|---|---|---|---|---|---|
| Myles | 9 | 100 | 100 | F | F | 40 | 50 | M | 200 | A | T |
| CDC Anna | 8 | 108 | 113 | F | F | 40 | 52 | L | 210 | P | T |
| CDC Cabri | 7 | 111 | 114 | F | F | 45 | 48 | M | 295 | P | T |
| CDC Desiray | 7 | 97 | 108 | F | F | 35 | 49 | M | 210 | P | LT |
| CDC Nika | 6 | 97 | 104 | F | F | 40 | 50 | L | 320 | P | T |

* Area 1: brown soil zone; Area 2: dark brown soil zone

** Leaf type: F=fern; U=unifoliate

◆ Seed shape: P=plump; A=angular

♥ Seed coat color: T=tan; LT=light tan

**Additional Information:**
Chickpea is best adapted to stubble production in the Brown and Dark Brown soil zones. Chickpea is a deep-rooted crop which is efficient in water uptake. Planting on clay soils, regardless of soil zone, increases the risk of prolonged vegetative growth and failure to mature on time. This risk can be reduced by planting on sandier, drought prone soils. Chickpea will tolerate light frosts in the spring. Desi varieties can be seeded in late April or early May. Kabuli varieties should be planted between early to mid May into a warm seedbed, preferably at least 10°C average soil temperature at depth of seeding.

**Ascochyta blight** can completely destroy a chickpea crop. Varieties listed in the recommendation tables differ in their resistance from "Very Poor" to "Poor" to "Fair"; none are rated as "Good". Fern-leaf varieties tend to develop less ascochyta blight than unifoliate-leaf varieties. Susceptibility to the disease increases at the flowering and early podding stage. Field scouting for disease symptoms should begin in early June and continue throughout the growing season. Scouting should concentrate on areas where the risk of early infection is higher, e.g. fields adjacent to previous chickpea crops, where plant densities are higher, and in higher moisture areas. Scouting field margins is not sufficient. Fungicide application(s) are often necessary to protect crops. Disease risk is greater under conditions of frequent showers and/or heavy dew, and for varieties rated as Poor or Very Poor. Ascochyta blight is seed-borne and stubble-borne, therefore, growers should use seed with ascochyta blight levels as close to 0% as possible, and plant chickpea in the same field no more than once in four years.

Chickpea requires planting equipment with a seed-feeding mechanism capable of handling large seeds. Chickpea seeds are highly susceptible to damage and should be handled gently at all times. Seed treatment with a metalaxyl-based product for seed rot diseases is strongly recommended for kabuli varieties, and may be required for desi varieties if conditions favour seed rotting diseases. Seed treatment with Crown or Apron Maxx RTA is strongly recommended for both desi and kabuli varieties to reduce the severity of seed-borne ascochyta blight. Plant chickpea seeds approximately 6 cm deep. Seeding rates vary with seed size; target 3-4 plants per sq. foot. Desi varieties are generally earlier maturing and higher yielding compared to the currently available kabuli varieties. The chickpea crop has stiff stems and can be swathed or straight cut at maturity. Thresh kabuli varieties gently to avoid seed splitting. All kabuli chickpea varieties listed have normal ("ram's head") seed shape, with the exception of Amit (B90) which has a round seed shape.

Certified Seed of **CDC Frontier, CDC Yuma, CDC Xena, CDC Chico, CDC Diva, CDC Desiray, CDC Anna**, and **CDC Nika** will be available in 2006. For more details on production consult the *Pulse Production Manual* on the Saskatchewan Pulse Growers website: www.saskpulse.com.

## Dry Bean
### Main characteristics varieties

| Variety | Type | Years Tested* | Yield as % of CDC Pintium | | | Days to Flower | Maturity Rating | Pod Clearance ♦ | Seed Wt g/100 | Growth Habit ‡ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Irrigated | Area 1 | Area 2 | | | | | |
| **CDC Pintium** | **pinto** | **9** | **100** | **100** | **100** | **50** | **E** | **80** | **350** | **I** |
| CDC Camino | pinto | 6 | 97 | 86 | 76 | 52 | L | 81 | 323 | I |
| **CDC Minto** | **pinto** | **7** | **90** | **102** | **98** | **51** | **M** | **62** | **410** | **III** |
| CDC Pinnacle | pinto | 6 | 102 | 103 | 98 | 53 | L | 67 | 352 | III |
| **Othello** | **pinto** | **6** | **96** | **96** | **89** | **52** | **L** | **51** | **323** | **III** |
| Envoy | navy | 5 | 73 | 76 | 92 | 53 | M | 73 | 184 | I |
| **CDC Whitecap** | **navy** | **6** | **88** | **95** | **95** | **56** | **M** | **75** | **194** | **II** |
| Cruiser | navy | 4 | 71 | 83 | 108 | 54 | L | 69 | 164 | II |
| **AC Polaris** | **great northern** | **6** | **95** | **84** | **97** | **52** | **L** | **70** | **310** | **III** |
| CDC Polar Bear | great northern | 5 | 95 | 87 | 77 | 52 | L | 65 | 339 | III |
| **US 1140** | **great northern** | **6** | **88** | **87** | **81** | **51** | **L** | **53** | **289** | **III** |
| Viva | pink | 4 | 94 | 102 | 80 | 51 | L | 50 | 242 | III |
| **AC Redbond** | **small red** | **6** | **95** | **102** | **97** | **51** | **M** | **65** | **290** | **II** |
| AC Black Diamond | black | 5 | 102 | 95 | 94 | 54 | M | 70 | 250 | II |
| **CDC Expresso** | **black** | **9** | **65** | **79** | **74** | **47** | **M** | **87** | **191** | **I** |
| CDC Jet | black | 6 | 70 | 97 | 107 | 58 | L | 80 | 175 | II |
| **CDC Nighthawk** | **black** | **5** | **62** | **61** | **67** | **58** | **L** | **77** | **165** | **II** |

* Co-op and regional trials grown in narrow rows. Direct comparisons to CDC Pintium since 1996

♦ Pod clearance: percentage of pods that completely clear the cutterbar at time of swathing

‡ Growth habit: I=determinate bush; II=indeterminate bush; III=indeterminate vine

## Faba Bean
### Main characteristics varieties

| Variety | Years Tested | Yield as % of Outlook | | Maturity | Seed Weight g/100 |
|---|---|---|---|---|---|
| | | (Northeast Dryland) | (South Central Irrigated) | | |
| **Outlook** | **15** | **100** | **100** | **109** | **360** |
| Aladin | 15 | 104 | 110 | 112 | 400 |
| **CDC Blitz** | **6** | **101** | **105** | **109** | **410** |
| CDC Fatima | 8 | 100 | 104 | 105 | 520 |
| **Cresta** | **3** | **92** | **101** | **105** | **630** |
| Orion | 6 | 95 | 94 | 103 | 350 |
| **Scirocco** | **3** | **96** | **110** | **107** | **550** |

### Additional Information:

Faba bean should be seeded early (late April to early May). It is best adapted to irrigated areas in the Dark Brown soil zone and the portion of the Black soil zone with the longest growing season.

Seed supplies of **CDC Blitz, Scirocco** and **Cresta** are limited.

Faba bean is a legume and thus is able to fix nitrogen from the air, provided the seed is inoculated with the proper bacteria prior to planting.

## Chickpea

Characteristics of Kabuli and Desi varieties

| KABULI Variety | Years Tested | Yield as % of Sanford Area 1* | Area 2* | Leaf Type** | Ascochyta Blight | Height (cm) | Days to Flower | Maturity | Seed Wt (g/1000) |
|---|---|---|---|---|---|---|---|---|---|
| Sanford | 9 | 100 | 100 | U | VP | 50 | 57 | VL | 415 |
| Amit (B-90) | 8 | 141 | 142 | F | F | 50 | 55 | L | 265 |
| CDC ChiChi | 5 | 117 | 117 | F | P | 45 | 53 | L | 385 |
| CDC Chico | 7 | 136 | 147 | F | P | 45 | 51 | M | 265 |
| CDC Diva | 4 | 104 | 117 | U | VP | 45 | 52 | L | 490 |
| CDC Frontier | 5 | 164 | 160 | F | F | 45 | 55 | L | 375 |
| CDC Xena | 9 | 117 | 127 | U | VP | 45 | 52 | L | 470 |
| CDC Yuma | 7 | 113 | 116 | F | P | 50 | 53 | VL | 410 |
| Dwelley | 3 | 86 | 88 | U | VP | 45 | 57 | VL | 490 |
| Evans | 4 | 90 | 98 | U | VP | 50 | 53 | VL | 430 |

| DESI Variety | Years Tested | Yield as % of Myles Area 1* | Area 2* | Leaf Type** | Ascochyta Blight | Height (cm) | Days to Flower | Maturity | Seed Wt (g/1000) | Seed Shape◆ | Seed Coat Colour♥ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Myles | 9 | 100 | 100 | F | F | 40 | 50 | M | 200 | A | T |
| CDC Anna | 8 | 108 | 113 | F | F | 40 | 52 | L | 210 | P | T |
| CDC Cabri | 7 | 111 | 114 | F | F | 45 | 48 | M | 295 | P | T |
| CDC Desiray | 7 | 97 | 108 | F | F | 35 | 49 | M | 210 | P | LT |
| CDC Nika | 6 | 97 | 104 | F | F | 40 | 50 | L | 320 | P | T |

* Area 1: brown soil zone; Area 2: dark brown soil zone

** Leaf type: F=fern; U=unifoliate

◆ Seed shape: P=plump; A=angular

♥ Seed coat color: T=tan; LT=light tan

**Additional Information:**
Chickpea is best adapted to stubble production in the Brown and Dark Brown soil zones. Chickpea is a deep-rooted crop which is efficient in water uptake. Planting on clay soils, regardless of soil zone, increases the risk of prolonged vegetative growth and failure to mature on time. This risk can be reduced by planting on sandier, drought prone soils. Chickpea will tolerate light frosts in the spring. Desi varieties can be seeded in late April or early May. Kabuli varieties should be planted between early to mid May into a warm seedbed, preferably at least 10°C average soil temperature at depth of seeding.

**Ascochyta blight** can completely destroy a chickpea crop. Varieties listed in the recommendation tables differ in their resistance from "Very Poor" to "Poor" to "Fair"; none are rated as "Good". Fern-leaf varieties tend to develop less ascochyta blight than unifoliate-leaf varieties. Susceptibility to the disease increases at the flowering and early podding stage. Field scouting for disease symptoms should begin in early June and continue throughout the growing season. Scouting should concentrate on areas where the risk of early infection is higher, e.g. fields adjacent to previous chickpea crops, where plant densities are higher, and in higher moisture areas. Scouting field margins is not sufficient. Fungicide application(s) are often necessary to protect crops. Disease risk is greater under conditions of frequent showers and/or heavy dew, and for varieties rated as Poor or Very Poor. Ascochyta blight is seed-borne and stubble-borne, therefore, growers should use seed with ascochyta blight levels as close to 0% as possible, and plant chickpea in the same field no more than once in four years.

Chickpea requires planting equipment with a seed-feeding mechanism capable of handling large seeds. Chickpea seeds are highly susceptible to damage and should be handled gently at all times. Seed treatment with a metalaxyl-based product for seed rot diseases is strongly recommended for kabuli varieties, and may be required for desi varieties if conditions favour seed rotting diseases. Seed treatment with Crown or Apron Maxx RTA is strongly recommended for both desi and kabuli varieties to reduce the severity of seed-borne ascochyta blight. Plant chickpea seeds approximately 6 cm deep. Seeding rates vary with seed size; target 3-4 plants per sq. foot. Desi varieties are generally earlier maturing and higher yielding compared to the currently available kabuli varieties. The chickpea crop has stiff stems and can be swathed or straight cut at maturity. Thresh kabuli varieties gently to avoid seed splitting. All kabuli chickpea varieties listed have normal ("ram's head") seed shape, with the exception of Amit (B90) which has a round seed shape.

Certified Seed of **CDC Frontier, CDC Yuma, CDC Xena, CDC Chico, CDC Diva, CDC Desiray, CDC Anna**, and **CDC Nika** will be available in 2006. For more details on production consult the *Pulse Production Manual* on the Saskatchewan Pulse Growers website: www.saskpulse.com.

## Dry Bean
Main characteristics varieties

| Variety | Type | Years Tested* | Yield as % of CDC Pintium: Irrigation | Area 2 | Area 3 | Days to Flower | Maturity Rating | Pod Clearance♠ | Seed Wt (g/1000) | Growth Habit‡ |
|---|---|---|---|---|---|---|---|---|---|---|
| CDC Pintium | pinto | 9 | 100 | 100 | 100 | 50 | E | 80 | 350 | I |
| CDC Camino | pinto | 6 | 97 | 86 | 76 | 52 | L | 81 | 323 | I |
| CDC Minto | pinto | 7 | 90 | 102 | 98 | 51 | M | 62 | 410 | III |
| CDC Pinnacle | pinto | 6 | 102 | 103 | 98 | 53 | L | 67 | 352 | III |
| Othello | pinto | 6 | 96 | 96 | 89 | 52 | L | 51 | 323 | III |
| Envoy | navy | 5 | 73 | 76 | 92 | 53 | M | 73 | 184 | I |
| CDC Whitecap | navy | 6 | 88 | 95 | 95 | 56 | M | 75 | 194 | II |
| Cruiser | navy | 4 | 71 | 83 | 108 | 54 | L | 69 | 164 | II |
| AC Polaris | great northern | 6 | 95 | 84 | 97 | 52 | L | 70 | 310 | III |
| CDC Polar Bear | great northern | 5 | 95 | 87 | 77 | 52 | L | 65 | 339 | III |
| US 1140 | great northern | 6 | 88 | 87 | 81 | 51 | L | 53 | 289 | III |
| Viva | pink | 4 | 94 | 102 | 80 | 51 | L | 50 | 242 | III |
| AC Redbond | small red | 6 | 95 | 102 | 97 | 51 | M | 65 | 290 | II |
| AC Black Diamond | black | 5 | 102 | 95 | 94 | 54 | M | 70 | 250 | II |
| CDC Expresso | black | 9 | 65 | 79 | 74 | 47 | M | 87 | 191 | I |
| CDC Jet | black | 6 | 70 | 97 | 107 | 58 | L | 80 | 175 | II |
| CDC Nighthawk | black | 5 | 62 | 61 | 67 | 58 | L | 77 | 165 | II |

* Co-op and regional trials grown in narrow rows. Direct comparisons to CDC Pintium since 1996

♠ Pod clearance: percentage of pods that completely clear the cutterbar at time of swathing

‡ Growth habit: I=determinate bush; II=indeterminate bush; III=indeterminate vine

## Faba Bean
Main characteristics varieties

| Variety | Years Tested | Yield % of Outlook: (Northeast) Dryland | (South Central) Irrigated | Maturity in Days | Seed Weight (g/1000) |
|---|---|---|---|---|---|
| Outlook | 15 | 100 | 100 | 109 | 360 |
| Aladin | 15 | 104 | 110 | 112 | 400 |
| CDC Blitz | 6 | 101 | 105 | 109 | 410 |
| CDC Fatima | 8 | 100 | 104 | 105 | 520 |
| Cresta | 3 | 92 | 101 | 105 | 630 |
| Orion | 6 | 95 | 94 | 103 | 350 |
| Scirocco | 3 | 96 | 110 | 107 | 550 |

### Additional Information:
Faba bean should be seeded early (late April to early May). It is best adapted to irrigated areas in the Dark Brown soil zone and the portion of the Black soil zone with the longest growing season.

Seed supplies of **CDC Blitz, Scirocco** and **Cresta** are limited.

Faba bean is a legume and thus is able to fix nitrogen from the air, provided the seed is inoculated with the proper bacteria prior to planting.

# Oilseed Crops

## Flax

Main characteristics varieties

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Relative ♣ | | |
| CDC Bethune ▲ | 10 | 100 | 100 | 100 | L | M | G |
| CDC Arras | 10 | 95 | 92 | 92 | M | L | F |
| AC Carnduff | 8 | 86 | 89 | 91 | M | M | G |
| Flanders | 10 | 90 | 87 | 91 | L | S | G |
| Hanley ▲ | 4 | 90 | 90 | 93 | M | M | G |
| Lightning ▲ | 6 | 92 | 92 | 93 | L | M | G |
| [illegible]beth ▲ | 4 | 91 | 93 | 94 | L | M | G |
| CDC Mons | 4 | 99 | 96 | 93 | L | S | G |
| CDC Normandy | 6 | 91 | 93 | 89 | M | M | F |
| Prairie Blue ▲ | 4 | 99 | 92 | 97 | L | S | VG |
| CDC Sorrel ● | 4 | 102 | 106 | -- | L | L | G |
| Taurus ▲ | 6 | 94 | 99 | 94 | M | M | G |
| CDC Valour | 6 | 91 | 86 | 84 | E | M | G |
| Vimy | 10 | 94 | 90 | 85 | M | L | P |
| AC Watson ▲ | 6 | 88 | 93 | 92 | M | M | G |
| Solin | | | | | | | |
| CDC Gold ● | 4 | 78 | 79 | 76 | E | L | G |
| 2047 ▲ | 4 | 86 | 89 | 86 | M | M | G |
| 2090 ● | 4 | 91 | 98 | 90 | M | L | G |
| 2149 ● | 4 | 88 | 97 | -- | M | M | G |

* Data from Regional and Co-op trials

♣ Relative maturity: The relative maturity of the check, **CDC Bethune**, is L (on average 101 days from seeding to swathing ripeness)

### Additional Information:

All varieties are resistant to rust and moderately resistant to Fusarium wilt.

No seed of **CDC Sorrel** and **2149** will be available in 2006.

**Solin** is defined as a type of flax with less than 5% linolenic acid in its oil and having a yellow seed coat. Solin varieties produce food quality oil and, as such, cannot be sold in traditional flax markets. They are available only for contract production.

Frozen flax should be analyzed by a feed testing laboratory to determine that it is free of prussic acid before using it as a livestock feed.

## Mustard
### Main characteristics of varieties*

| Variety | Yield % of Commercial Brown | Plant Height cm | Volatile♣ Oil mg/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight g/1000 |
|---|---|---|---|---|---|---|
| **Yellow** | | | | | | |
| AC Pennant | 100 | 92 | 31.9 | 35.4 | 29.4 | 5.57 |
| AC Base | 101 | 95 | 30.6 | 32.3 | 29.3 | 5.81 |
| Ace | 100 | 98 | 37.6 | 36.1 | 29.1 | 5.46 |
| Tilney | 98 | 93 | 36.8 | 35.9 | 29.3 | 5.70 |
| Viscount | 94 | 97 | 40.2 | 36.3 | 29.1 | 5.15 |
| Andante | 100 | 98 | 40.6 | 36.4 | 28.2 | 5.99 |

| Variety | Yield % of Commercial Brown | Plant Height cm | Volatile♣ Oil mg/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight g/1000 |
|---|---|---|---|---|---|---|
| **Oriental** | | | | | | |
| Cutlass | 100 | 108 | 10.1 | 29.6 | 41.6 | 2.75 |
| Forge | 97 | 120 | 10.6 | 30.2 | 39.0 | 2.54 |
| AC Vulcan | 100 | 109 | 11.3 | 30.4 | 41.2 | 2.85 |

| Variety | Yield % of Commercial Brown | Plant Height cm | Volatile♣ Oil mg/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight g/1000 |
|---|---|---|---|---|---|---|
| **Brown** | | | | | | |
| Commercial Brown | 100 | 106 | 8.54 | 29.0 | 38.6 | 2.61 |
| Duchess ✪ | 102 | 109 | 8.58 | 28.9 | 38.7 | 2.71 |

* All varieties are tested at all locations from Areas 1, 2 and 3 (1999 - 2004 Co-operative Mustard Test)

Yellow mustard 32 station-years (s/y) for yield, 24 s/y for seed quality; Brown and Oriental mustard 33 s/y for yield, 22 s/y seed quality

‡ Mucilage in centi Stoke per ml/1g seed (a measure of viscosity)

♣ Volatile Oil as allyl isothiocyanate

### Additional Information:

Three types of mustard are grown in western Canada: Yellow *(Sinapis alba)* Brown and Oriental (both Brassica juncea). Mustard is typically grown under contract, where the contractor specifies the variety to be grown to meet industry specifications for product quality. Mustard varieties mature in 88-90 days with yellow mustard maturing two days earlier than Oriental or Brown. All mustard varieties have good resistance to blackleg disease.

The yellow mustard varieties **AC Base, Ace** and **Andante** have similar yield to **AC Pennant**, while **Tilney** and **Viscount** are lower yielding. **AC Pennant** has shorter straw (92 cm) while newer varieties are slightly taller (95-98 cm). The protein contents of **Andante, Viscount, Tilney** and **Ace** are 0.5%-1.0% higher than **AC Pennant** and **AC Base**. High protein content is of importance for yellow mustard flour as an ingredient in meat products. A unique feature of yellow mustard is a high mucilage content. Mucilage is valued by the mustard industry as a stabilizer in prepared food products.

Brown mustard is grown primarily for use in the Dijon mustard market. There is one registered variety, **Duchess**, which is similar in overall performance to Commercial or Common Brown. Both varieties are highly susceptible to white rust disease.

Three varieties of oriental mustard are available for production. **AC Vulcan** has a higher seed weight and similar fixed oil content, higher protein content, slightly higher allyl content and brighter yellow seed than the standard, **Cutlass**. **Forge**, has lower yield, smaller seed, lower fixed oil content and matures 2 days later than **Cutlass**. **Cutlass** and **AC Vulcan** are resistant to white rust disease while **Forge** is susceptible. **Forge** is the tallest variety. There are no significant differences in green seed count among all varieties.

## Sunflower (Oilseed)
### Main characteristics of varieties

| Variety | Years Tested | Yield % of 63A70 | Average Maturity | Oil %* |
|---|---|---|---|---|
| 63A70 | 7 | 100 | 122 | 48.2 |
| 63M02** | 4 | 97 | 120 | 49.1 |

* Dry Basis

** Mid oleic NuSun

### Additional Information:

Sunflower requires 105-125 days to mature, depending on the cultivar and the growing season. Oilseed sunflower has been grown in the Dark Brown and Black soil zones in southeastern Saskatchewan.

The earlier maturing, short stature (EMSS) varieties are adapted to production in most areas of Saskatchewan.

The Saskatchewan Sunflower Committee has been conducting trials in Saskatchewan for the purpose of registration and demonstration since 1983.Varieties that have been tested in official Saskatchewan Sunflower Committee trials for three years, continue to be tested and are registered for production in Canada, are placed on the list.

The Committee has been testing NuSun, a sunflower with a fatty acid profile desired by major frying companies. There will be additional acres of oilseed sunflower required to address the increased birdseed market.

## Sunflower (Oilseed) EMSS
### Main characteristics of varieties

| Variety | Years Tested | Yield kg/ha (8 yr. avg.) | Average Maturity | Oil %* |
|---|---|---|---|---|
| 63A21 | 8 | 2096 | 114 | 47.0 |

* Dry Basis

# Oilseed Crops

## Flax

Main characteristics varieties

| Variety | Years Tested | Yield % of CDC Bethune* Area 1 & 2 | Yield % of CDC Bethune* Area 3 & 4 | Yield % of CDC Bethune* Irrigation | Relative Maturity♣ | Seed Size | Resistance to Lodging |
|---|---|---|---|---|---|---|---|
| CDC Bethune ♲ | 10 | 100 | 100 | 100 | L | M | G |
| CDC Arras | 10 | 95 | 92 | 92 | M | L | F |
| AC Carnduff | 8 | 86 | 89 | 91 | M | M | G |
| Flanders | 10 | 90 | 87 | 91 | L | S | G |
| Hanley ♲ | 4 | 90 | 90 | 93 | M | M | G |
| Lightning ♲ | 6 | 92 | 92 | 93 | L | M | G |
| Macbeth ♲ | 4 | 91 | 93 | 94 | L | M | G |
| CDC Mons | 4 | 99 | 96 | 93 | L | S | G |
| CDC Normandy | 6 | 91 | 93 | 89 | M | M | F |
| Prairie Blue ♲ | 4 | 99 | 92 | 97 | L | S | VG |
| CDC Sorrel ✪ | 4 | 102 | 106 | -- | L | L | G |
| Taurus ♲ | 6 | 94 | 99 | 94 | M | M | G |
| CDC Valour | 6 | 91 | 86 | 84 | E | M | G |
| Vimy | 10 | 94 | 90 | 85 | M | L | P |
| AC Watson ♲ | 6 | 88 | 93 | 92 | M | M | G |
| **Solin** | | | | | | | |
| CDC Gold ✪ | 4 | 78 | 79 | 76 | E | L | G |
| 2047 ♲ | 4 | 86 | 89 | 86 | M | M | G |
| 2090 ✪ | 4 | 91 | 98 | 90 | M | L | G |
| 2149 ✪ | 4 | 88 | 97 | -- | M | M | G |

* Data from Regional and Co-op trials

♣ Relative maturity: The relative maturity of the check, **CDC Bethune**, is L (on average 101 days from seeding to swathing ripeness)

### Additional Information:

All varieties are resistant to rust and moderately resistant to Fusarium wilt.

No seed of **CDC Sorrel** and **2149** will be available in 2006.

**Solin** is defined as a type of flax with less than 5% linolenic acid in its oil and having a yellow seed coat. Solin varieties produce food quality oil and, as such, cannot be sold in traditional flax markets. They are available only for contract production.

Frozen flax should be analyzed by a feed testing laboratory to determine that it is free of prussic acid before using it as a livestock feed.

## Mustard
Main characteristics of varieties*

| Type and Variety | Yield % of AC Pennant | Plant Height (cm) | Mucilage ‡ cS ml/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight (g/1000) |
|---|---|---|---|---|---|---|
| **Yellow** | | | | | | |
| AC Pennant | 100 | 92 | 31.9 | 35.4 | 29.4 | 5.57 |
| AC Base | 101 | 95 | 30.6 | 32.3 | 29.3 | 5.81 |
| Ace | 100 | 98 | 37.6 | 36.1 | 29.1 | 5.46 |
| Tilney | 98 | 93 | 36.8 | 35.9 | 29.3 | 5.70 |
| Viscount | 94 | 97 | 40.2 | 36.3 | 29.1 | 5.15 |
| Andante | 100 | 98 | 40.6 | 36.4 | 28.2 | 5.99 |

| Type and Variety | Yield % of Cutlass | Plant Height (cm) | Volatile♣ Oil mg/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight (g/1000) |
|---|---|---|---|---|---|---|
| **Oriental** | | | | | | |
| Cutlass | 100 | 108 | 10.1 | 29.6 | 41.6 | 2.75 |
| Forge | 97 | 120 | 10.6 | 30.2 | 39.0 | 2.54 |
| AC Vulcan | 100 | 109 | 11.3 | 30.4 | 41.2 | 2.85 |

| Type and Variety | Yield % of Commercial Brown | Plant Height (cm) | Volatile♣ Oil mg/g Seed | Protein % Seed | Fixed Oil % Seed | Seed Weight (g/1000) |
|---|---|---|---|---|---|---|
| **Brown** | | | | | | |
| Commercial Brown | 100 | 106 | 8.54 | 29.0 | 38.6 | 2.61 |
| Duchess ○ | 102 | 109 | 8.58 | 28.9 | 38.7 | 2.71 |

* All varieties are tested at all locations from Areas 1, 2 and 3 (1999 - 2004 Co-operative Mustard Test)

Yellow mustard 32 station-years (s/y) for yield, 24 s/y for seed quality; Brown and Oriental mustard 33 s/y for yield, 22 s/y seed quality

‡ Mucilage in centi Stoke per ml/1g seed (a measure of viscosity)

♣ Volatile Oil as allyl isothiocyanate

### Additional Information:
Three types of mustard are grown in western Canada: Yellow *(Sinapis alba)* Brown and Oriental (both Brassica juncea). Mustard is typically grown under contract, where the contractor specifies the variety to be grown to meet industry specifications for product quality. Mustard varieties mature in 88-90 days with yellow mustard maturing two days earlier than Oriental or Brown. All mustard varieties have good resistance to blackleg disease.

The yellow mustard varieties **AC Base, Ace** and **Andante** have similar yield to **AC Pennant**, while **Tilney** and **Viscount** are lower yielding. **AC Pennant** has shorter straw (92 cm) while newer varieties are slightly taller (95-98 cm). The protein contents of **Andante, Viscount, Tilney** and **Ace** are 0.5%-1.0% higher than **AC Pennant** and **AC Base**. High protein content is of importance for yellow mustard flour as an ingredient in meat products. A unique feature of yellow mustard is a high mucilage content. Mucilage is valued by the mustard industry as a stabilizer in prepared food products.

Brown mustard is grown primarily for use in the Dijon mustard market. There is one registered variety, **Duchess**, which is similar in overall performance to Commercial or Common Brown. Both varieties are highly susceptible to white rust disease.

Three varieties of oriental mustard are available for production. **AC Vulcan** has a higher seed weight and similar fixed oil content, higher protein content, slightly higher allyl content and brighter yellow seed than the standard, **Cutlass**. **Forge**, has lower yield, smaller seed, lower fixed oil content and matures 2 days later than **Cutlass**. **Cutlass** and **AC Vulcan** are resistant to white rust disease while **Forge** is susceptible. **Forge** is the tallest variety. There are no significant differences in green seed count among all varieties.

## Sunflower (Oilseed)
Main characteristics of varieties

| Variety | Years Tested | Yield % of 63A70 | Average Maturity | Oil %* |
|---|---|---|---|---|
| 63A70 | 7 | 100 | 122 | 48.2 |
| 63M02** | 4 | 97 | 120 | 49.1 |

* Dry Basis

** Mid oleic NuSun

### Additional Information:
Sunflower requires 105-125 days to mature, depending on the cultivar and the growing season. Oilseed sunflower has been grown in the Dark Brown and Black soil zones in southeastern Saskatchewan.

The earlier maturing, short stature (EMSS) varieties are adapted to production in most areas of Saskatchewan.

The Saskatchewan Sunflower Committee has been conducting trials in Saskatchewan for the purpose of registration and demonstration since 1983.Varieties that have been tested in official Saskatchewan Sunflower Committee trials for three years, continue to be tested and are registered for production in Canada, are placed on the list.

The Committee has been testing NuSun, a sunflower with a fatty acid profile desired by major frying companies. There will be additional acres of oilseed sunflower required to address the increased birdseed market.

## Sunflower (Oilseed) EMSS
Main characteristics of varieties

| Variety | Years Tested | Yield (kg/ha) (8 yr. avg.) | Average Maturity | Oil %* |
|---|---|---|---|---|
| 63A21 | 8 | 2096 | 114 | 47.0 |

* Dry Basis

# Canola

## Main characteristics of varieties

| Variety | Organization | ♦ | ♣ | ♠ | Maturity | | | Yield | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Days to maturity | Days to maturity | Days to maturity | Yield | Yield | Yield | Yield | Yield | Lodging | Shattering | Blackleg Rating |
| **B. napus as compared to 46A65** | | | | | | | | | | | | | | | |
| **46A65** ♣ | Pioneer Hi-Bred | O | CO | | 0.0 | 0.0 | 0.0 | 100 | 100 | 100 | 100 | 0.0 | 0 | 0 | R |
| Nex 824CL | Dow AgroSciences | O | CF | • | | 2.4 | 5.0 | | 91 | 94 | 91 | 2.9 | -0 | -0 | R |
| **Nex 828CL** | Dow AgroSciences | O | CF | • | | 1.7 | 2.3 | | 97 | 90 | 96 | 1.8 | 4 | 1 | R |
| Nex 830CL | Dow AgroSciences | O | CF | • | | 3.0 | 3.6 | | 101 | 97 | 100 | 3.1 | 2 | -0 | R |
| **292CL** ♣ | Monsanto Canada Inc. | O | CF | | 0.6 | 0.9 | -0.9 | 105 | 101 | 115 | 104 | 0.8 | -1 | 0 | R |
| 71-20 CL | Monsanto Canada Inc. | H | CF | | -6.4 | -2.1 | -3.5 | 102 | 105 | 105 | 104 | -3.8 | -0 | -0 | R |
| **45H72** | Pioneer Hi-Bred | H | CF | | -2.3 | -0.4 | -1.1 | 109 | 114 | 111 | 112 | -1.2 | 3 | -0 | R |
| 46H70 | Pioneer Hi-Bred | H | CF | | 0.8 | 0.3 | 0.4 | 103 | 103 | 108 | 104 | 0.4 | 2 | 0 | R |
| **Manor** ♻ | FarmPure Seeds | O | CF | | 2.7 | 2.0 | 1.0 | 102 | 104 | 105 | 103 | 2.1 | -1 | -0 | MS |
| SP 442 CL | Sask Wheat Pool Inc. | H | CF | | | -2.3 | | | 99 | | 99 | -2.3 | 0 | -0 | MR |
| **SP Deliver CL** ♻ | Sask Wheat Pool Inc. | O | CF | | -1.5 | -1.4 | | 99 | 89 | | 89 | -1.4 | -3 | 0 | MR |
| 5020 | Bayer CropScience | H | LL | | -4.7 | -1.3 | -4.3 | 128 | 126 | 124 | 126 | -2.8 | -0 | 0 | R |
| **5030** | Bayer CropScience | H | LL | | 0.8 | -0.3 | -1.5 | 127 | 131 | 130 | 129 | -0.0 | 5 | 1 | R |
| 5070 | Bayer CropScience | H | LL | | 1.0 | -0.2 | -0.4 | 124 | 130 | 131 | 128 | 0.2 | 4 | 0 | R |
| **423_02** | Brett-Young Seeds | O | RR | | 1.8 | 0.4 | 0.4 | 96 | 93 | 97 | 94 | 0.8 | -1 | 0 | R |
| 624 RR | Brett-Young Seeds | H | RR | | 0.6 | -0.4 | -1.2 | 107 | 102 | 97 | 103 | -0.2 | 2 | 1 | R |
| **629 RR** | Brett-Young Seeds | O | RR | | -1.9 | -1.4 | -2.0 | 96 | 99 | 101 | 98 | -1.7 | -2 | -0 | R |
| 904_02 | Brett-Young Seeds | O | RR | | -0.4 | -0.6 | -2.9 | 99 | 99 | 97 | 99 | -0.7 | -1 | -0 | MR |
| **1818** | Canterra Seeds Ltd. | O | RR | | | -0.5 | -0.2 | | 107 | 122 | 110 | -0.4 | -5 | 0 | R |
| 1839V ♻ | Canterra Seeds Ltd. | O | RR | | -7.2 | | | 98 | | | 97 | -7.2 | -7 | 1 | MR |
| **1841** | Canterra Seeds Ltd. | H | RR | | | 0.8 | -0.8 | | 114 | 120 | 115 | 0.3 | 2 | 1 | R |
| 1851H | Canterra Seeds Ltd. | H | RR | | | -1.7 | | | 111 | | 111 | -1.7 | -1 | 0 | MR |
| **1898** | Canterra Seeds Ltd. | H | RR | | -6.7 | -3.2 | | 101 | 100 | | 101 | -4.6 | -2 | -0 | R |
| CC504-03 | Canterra Seeds Ltd. | O | RR | | | 0.7 | 0.6 | | 107 | 103 | 106 | 0.7 | 2 | -0 | MR |
| **IMC209RR** | Cargill Specialty Canola Oils | O | RR | • | | 1.8 | 1.8 | | 96 | 93 | 97 | 1.8 | 1 | 0 | MR |
| v1030 | Cargill Specialty Canola Oils | H | RR | • | -4.3 | -1.8 | -1.0 | 113 | 108 | 113 | 110 | -2.5 | 1 | -0 | MR |
| **v1031** | Cargill Specialty Canola Oils | H | RR | • | -2.2 | -0.7 | -1.9 | 113 | 109 | 101 | 110 | -1.3 | 2 | -0 | MR |
| 71-25 RR | Monsanto Canada Inc. | H | RR | | -4.4 | -2.1 | | 106 | 105 | | 106 | -3.0 | 0 | 0 | R |
| **71-45 RR** | Monsanto Canada Inc. | H | RR | | -4.7 | -3.3 | -4.0 | 116 | 110 | 108 | 112 | -3.8 | -1 | -0 | MR |
| 71-85 RR | Monsanto Canada Inc. | H | RR | | | | -0.5 | | | 109 | 109 | -0.5 | 2 | -0 | R |
| **43A56** ♣ | Pioneer Hi-Bred | O | RR | | -10.1 | -5.6 | -5.8 | 98 | 89 | 81 | 92 | -7.3 | -2 | -0 | MR |
| 45H21 | Pioneer Hi-Bred | H | RR | | -4.2 | -1.3 | -1.9 | 115 | 117 | 116 | 116 | -2.4 | 1 | 0 | R |
| **45H24** | Pioneer Hi-Bred | H | RR | | -1.9 | -0.8 | -1.7 | 120 | 112 | 115 | 115 | -1.3 | 2 | 0 | R |
| 45H25 | Pioneer Hi-Bred | H | RR | | -3.5 | -2.0 | -2.8 | 117 | 110 | 114 | 113 | -2.6 | 3 | 0 | R |
| **46H23** | Pioneer Hi-Bred | H | RR | | 0.4 | 0.2 | -0.2 | 106 | 101 | 105 | 104 | 0.2 | 0 | -0 | R |
| 9451 | PROVEN SEED | S | RR | | -2.9 | -1.0 | | 106 | 103 | | 104 | -1.8 | 1 | -0 | MR |
| **9550** | PROVEN SEED | O | RR | | -2.6 | -1.3 | -0.9 | 101 | 96 | 101 | 100 | -1.7 | 0 | -0 | R |
| Reaper ♻ | FarmPure Seeds | O | RR | | 2.5 | 1.2 | 1.0 | 97 | 98 | 115 | 99 | 1.6 | 1 | 0 | R |
| **SW Gladiator RR** | FarmPure Seeds | S | RR | | -2.3 | -0.8 | -3.0 | 102 | 102 | 96 | 101 | -1.8 | -0 | 0 | MR |
| NR01-5660 ♻ | Sask Wheat Pool Inc. | O | RR | | 0.5 | 0.2 | | 91 | 92 | | 92 | 0.3 | -1 | 0 | R |
| **SP 451 RR** | Sask Wheat Pool Inc. | H | RR | | | -2.3 | -3.3 | | 103 | 106 | 104 | -2.5 | -1 | -0 | MR |
| SP Banner ♣ | Sask Wheat Pool Inc. | O | RR | | -0.2 | -0.8 | -1.9 | 104 | 97 | 88 | 96 | -0.7 | 0 | 0 | R |
| **SP Craven** ♣ | Sask Wheat Pool Inc. | O | RR | • | | -0.4 | | | 78 | | 78 | -0.4 | -4 | -1 | R |
| SP Desirable RR | Sask Wheat Pool Inc. | S | RR | | -2.2 | -2.6 | -3.4 | 114 | 107 | 107 | 110 | -2.6 | 0 | 0 | R |
| **FortuneRR** | Secan | O | RR | | -2.4 | -1.2 | | 97 | 94 | | 95 | -1.7 | -0 | 0 | R |
| 821RR | Svalof Weibull | H | RR | | -0.3 | -1.0 | -1.3 | 109 | 102 | 110 | 106 | -0.8 | 2 | 0 | MR |
| **SW 3950** | Svalof Weibull | H | RR | | -3.2 | -1.4 | -2.6 | 108 | 111 | 101 | 108 | -2.2 | 1 | 0 | MR |
| SW 6802 | Svalof Weibull | S | RR | | -5.1 | -2.8 | | 103 | 105 | | 104 | -3.7 | -0 | -0 | MR |
| **SW 65246 RR** ♻ | Svalof Weibull | O | RR | | -1.2 | -0.7 | -1.6 | 108 | 108 | 112 | 109 | -1.0 | 1 | -0 | MR |

| Variety | Organization | ♦ | ♣ | ♠ | | | | 7 ST.YR | 3 ST.YR | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B. rapa compared to AC Sunbeam (from 2005 Canola table)** | | | | | | | | | | | | | | |
| AC PARKLAND | AAFC | O | CO | | 2 | 4 | | 96 | 82 | | | 2 | 2 | 0 | n/a |
| **AC SUNBEAM** | AAFC | O | CO | | 0 | 0 | | 100 | 100 | | | 0 | 0 | 0 | n/a |
| ACS-C7 | AAFC | S | CO | | 2 | 2 | | 96 | 97 | | | 2 | 3 | 0 | n/a |
| **SW SPIRIT RIVER** | Peace Pedigreed Seed | O | CO | | 5 | 5 | | 97 | 73 | | | 5 | 2 | 0 | n/a |

★ ST.YR = Station Year

♦ Varietal Kind: H=Hybrid, S=Synthetic, O=Open Pollinated

♣ Herbicide: CO=Conventional, CF=Clearfield, LL=Liberty Link, RR=Roundup Ready

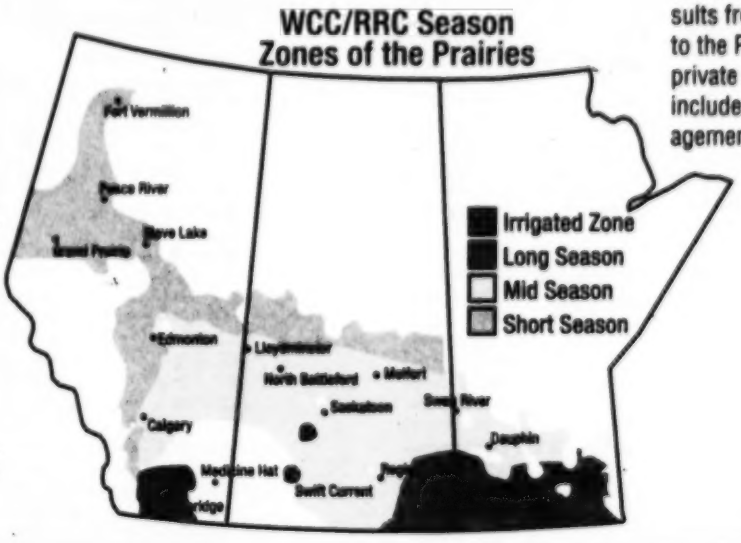
## Additional Information

The Prairie Canola Variety Testing (PCVT) program entered its third year in 2005. The testing system unites the provincial variety testing programs to standardize protocol and improve trial consistency and quality. Now growers can look to a single source of information on how a canola variety performed in three different zones across western Canada. The canola seed industry, WCC/RRC, Alberta Agriculture, Food and Rural Development, Saskatchewan Agriculture and Food, Manitoba Agriculture Food and Rural Initiatives, Agriculture and Agri-Food Canada and the Canola Council of Canada contributed to the development and operation of the PCVT.

Trials were conducted by seed companies, government researchers and independent contractors in three growing zones across the prairies: short-, mid- and long-season zones (see map). Varietal characteristics appear in the table. **It is important to note that this table represents data collected in one year only (2005).** Site-specific data can be found in the Canola Digest or on the CCC website (http://www.canola-council.org/pod).

**Interpreting PCVT Information:**

1. Use the map to identify your zone of adaptation. For site-specific data please refer to the *Canola Digest* or the Canola Council of Canada website. Don't limit your search to the areas closest to you. Comparing local results to other locations with similar growing conditions can also be valuable.
2. Zone tables show the actual yield of the Argentine check (46A65) or Polish check (AC Sunbeam) and other variety yields relative to the check. Although variety trials are carefully conducted, small percentage differences (e.g. <5%) in yield are usually insignificant.
3. The table includes information on maturity, resistance to lodging, blackleg resistance, varietal type (open-pollinated, hybrid, synthetic) and herbicide tolerance. Use this information in addition to yield to choose a variety.




**Argentine Canola**

Argentine varieties mature two weeks later than Polish varieties and are therefore better suited to the mid- and long-season growing areas of Saskatchewan. Blackleg disease, which is now widespread in Saskatchewan, can cause severe yield losses in varieties that are susceptible (S). Argentine varieties are susceptible to seed shattering when left standing at full maturity. Later maturing varieties tend to produce higher levels of green seed under wet and cool conditions at harvest, which can cause substantial grade reductions. The control of herbicide tolerant canola volunteers requires good agronomic practice such as proper crop and herbicide rotation.

**Polish Canola**

Polish varieties mature approximately two weeks earlier than Argentine varieties and are therefore less likely to produce green seed. Polish varieties are more heat and drought tolerant than Argentine varieties. They are also more shatter resistant than Argentine varieties and are therefore well suited to straight combining.

***Brassica juncea* Canola**

*Brassica juncea* canola is a new class of canola that is adapted to the brown and dark brown soil zones. It has very good resistance to blackleg and exhibits better heat and drought tolerance than other canolas. Juncea canola has shattering resistance similar to Polish canola, and is therefore well suited to straight combining. All production is contracted. The first two varieties, Arid and Amulet, yield approximately 112% of AC Excel (Argentine) in their zone of adaptation. The variety Dahinda yields about 103% of Arid and Amulet. A new variety, Estlin, has excellent lodging resistance and yields 105% of Arid and Amulet. Limited seed will be available in 2006.

**The Canola POD**

The Canola POD, or Performance On-line Database (http://www.canola-council.org/pod), was developed by the Canola Council of Canada to allow farmers to explore canola performance trial results from a broad range of sources in their own area. In addition to the Prairie Canola Variety Trial results, POD provides access to private seed company performance trial information which often includes more detailed information, such as notes on site management.

# Canola

## Main characteristics of varieties

| Current Name | Organization | Varietal Kind ◆ | Herbicide ◆ | Low Ln | Maturity: Short season +/- days | Maturity: Mid season +/- days | Maturity: Long season +/- days | Yield: Short season 10 ST.YR* | Yield: Mid season 13 ST.YR* | Yield: Long season 3 ST.YR* | Overall Average | Maturity all zones +/- days | Height all zones +/- inches | Lodging all zones Rating better + | Blackleg Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B. napus as compared to 46A65** | | | | | | | | | | | | | | | |
| 46A65 | Pioneer Hi-Bred | O | CO | | 0.0 | 0.0 | 0.0 | 100 | 100 | 100 | 100 | 0.0 | 0 | 0 | R |
| Nex 824CL | Dow AgroSciences | O | CF | • | | 2.4 | 5.0 | | 91 | 94 | 91 | 2.9 | -0 | -0 | R |
| Nex 828CL | Dow AgroSciences | O | CF | • | | 1.7 | 2.3 | | 97 | 90 | 96 | 1.8 | 4 | 1 | R |
| Nex 830CL | Dow AgroSciences | O | CF | • | | 3.0 | 3.6 | | 101 | 97 | 100 | 3.1 | 2 | -0 | R |
| 292CL | Monsanto Canada Inc. | O | CF | | 0.6 | 0.9 | -0.9 | 105 | 101 | 115 | 104 | 0.6 | -1 | 0 | R |
| 71-20 CL | Monsanto Canada Inc. | H | CF | | -6.4 | -2.1 | -3.5 | 102 | 105 | 105 | 104 | -3.8 | -0 | -0 | R |
| 45H72 | Pioneer Hi-Bred | H | CF | | -2.3 | -0.4 | -1.1 | 109 | 114 | 111 | 112 | -1.2 | 3 | -0 | R |
| 46H70 | Pioneer Hi-Bred | H | CF | | 0.8 | 0.3 | 0.4 | 103 | 103 | 108 | 104 | 0.4 | 2 | 0 | R |
| Manor | FarmPure Seeds | O | CF | | 2.7 | 2.0 | 1.0 | 102 | 104 | 105 | 103 | 2.1 | -1 | -0 | MS |
| SP 442 CL | Sask Wheat Pool Inc. | H | CF | | | -2.3 | | | 99 | | 99 | -2.3 | 0 | -0 | MR |
| SP Deliver CL | Sask Wheat Pool Inc. | O | CF | | -1.5 | -1.4 | | 89 | 89 | | 89 | -1.4 | -3 | 0 | MR |
| 5020 | Bayer CropScience | H | LL | | -4.7 | -1.3 | -4.3 | 128 | 126 | 124 | 126 | -2.6 | -0 | 0 | R |
| 5030 | Bayer CropScience | H | LL | | 0.8 | -0.3 | -1.5 | 127 | 131 | 130 | 129 | -0.0 | 5 | 1 | R |
| 5070 | Bayer CropScience | H | LL | | 1.0 | -0.2 | -0.4 | 124 | 130 | 131 | 128 | 0.2 | 4 | 0 | R |
| 423_02 | Brett-Young Seeds | O | RR | | 1.6 | 0.4 | 0.4 | 96 | 93 | 97 | 94 | 0.8 | -1 | 0 | R |
| 624 RR | Brett-Young Seeds | H | RR | | 0.6 | -0.4 | -1.2 | 107 | 102 | 97 | 103 | -0.2 | 2 | 1 | R |
| 829 RR | Brett-Young Seeds | O | RR | | -1.9 | -1.4 | -2.0 | 96 | 99 | 101 | 98 | -1.7 | -2 | -0 | R |
| 904_02 | Brett-Young Seeds | O | RR | | -0.4 | -0.6 | -2.9 | 99 | 99 | 97 | 99 | -0.7 | -1 | -0 | MR |
| 1818 | Canterra Seeds Ltd. | O | RR | | | -0.5 | -0.2 | | 107 | 122 | 110 | -0.4 | -5 | 0 | R |
| 1839V | Canterra Seeds Ltd. | O | RR | | -7.2 | | | 98 | | | 97 | -7.2 | -7 | 1 | MR |
| 1841 | Canterra Seeds Ltd. | H | RR | | | 0.6 | -0.8 | | 114 | 120 | 115 | 0.3 | 2 | 1 | R |
| 1851H | Canterra Seeds Ltd. | H | RR | | | -1.7 | | | 111 | | 111 | -1.7 | -1 | 0 | MR |
| 1896 | Canterra Seeds Ltd. | H | RR | | -6.7 | -3.2 | | 101 | 100 | | 101 | -4.6 | -2 | -0 | R |
| CC504-03 | Canterra Seeds Ltd. | O | RR | | | 0.7 | 0.6 | | 107 | 103 | 106 | 0.7 | 2 | -0 | MR |
| IMC209RR | Cargill Specialty Canola Oils | O | RR | • | | 1.8 | 1.8 | | 96 | 93 | 97 | 1.8 | 1 | 0 | MR |
| v1030 | Cargill Specialty Canola Oils | H | RR | • | -4.3 | -1.8 | -1.0 | 113 | 108 | 113 | 110 | -2.5 | 1 | -0 | MR |
| v1031 | Cargill Specialty Canola Oils | H | RR | • | -2.2 | -0.7 | -1.9 | 113 | 109 | 101 | 110 | -1.3 | 2 | -0 | MR |
| 71-25 RR | Monsanto Canada Inc. | H | RR | | -4.4 | -2.1 | | 106 | 105 | | 106 | -3.0 | 0 | 0 | R |
| 71-45 RR | Monsanto Canada Inc. | H | RR | | -4.7 | -3.3 | -4.0 | 116 | 110 | 108 | 112 | -3.8 | -1 | -0 | MR |
| 71-85 RR | Monsanto Canada Inc. | H | RR | | | | -0.5 | | | 109 | 109 | -0.5 | 2 | -0 | R |
| 43A56 | Pioneer Hi-Bred | O | RR | | -10.1 | -5.6 | -5.8 | 98 | 89 | 81 | 92 | -7.3 | -2 | -0 | MR |
| 45H21 | Pioneer Hi-Bred | H | RR | | -4.2 | -1.3 | -1.9 | 115 | 117 | 116 | 116 | -2.4 | 1 | 0 | R |
| 45H24 | Pioneer Hi-Bred | H | RR | | -1.9 | -0.8 | -1.7 | 120 | 112 | 115 | 115 | -1.3 | 2 | 0 | R |
| 45H25 | Pioneer Hi-Bred | H | RR | | -3.5 | -2.0 | -2.8 | 117 | 110 | 114 | 113 | -2.6 | 3 | 0 | R |
| 46H23 | Pioneer Hi-Bred | H | RR | | 0.4 | 0.2 | 0.2 | 106 | 101 | 105 | 104 | 0.2 | 0 | -0 | R |
| 9451 | PROVEN SEED | S | RR | | -2.9 | -1.0 | | 106 | 103 | | 104 | -1.8 | 1 | -0 | MR |
| 9550 | PROVEN SEED | O | RR | | -2.6 | -1.3 | -0.9 | 101 | 98 | 101 | 100 | -1.7 | 0 | -0 | R |
| Reaper | FarmPure Seeds | O | RR | | 2.5 | 1.2 | 1.0 | 97 | 96 | 115 | 99 | 1.6 | 1 | 0 | R |
| SW GladiatoRR | FarmPure Seeds | S | RR | | -2.3 | -0.8 | -3.0 | 102 | 102 | 96 | 101 | -1.6 | -0 | 0 | MR |
| NR01-5660 | Sask Wheat Pool Inc. | O | RR | | 0.5 | 0.2 | | 91 | 92 | | 92 | 0.3 | -1 | 0 | R |
| SP 451 RR | Sask Wheat Pool Inc. | H | RR | | | -2.3 | -3.3 | | 103 | 106 | 104 | -2.5 | -1 | -0 | MR |
| SP Banner | Sask Wheat Pool Inc. | O | RR | | -0.2 | -0.8 | -1.9 | 104 | 97 | 88 | 98 | -0.7 | 0 | 0 | R |
| SP Craven | Sask Wheat Pool Inc. | O | RR | • | | -0.4 | | | 78 | | 78 | -0.4 | 4 | -1 | R |
| SP Desirable RR | Sask Wheat Pool Inc. | S | RR | | -2.2 | -2.6 | -3.4 | 114 | 107 | 107 | 110 | -2.6 | 0 | 0 | R |
| FortuneRR | Secan | O | RR | | -2.4 | -1.2 | | 97 | 94 | | 95 | -1.7 | -0 | 0 | R |
| 821RR | Svalof Weibull | H | RR | | -0.3 | -1.0 | -1.3 | 109 | 102 | 110 | 106 | -0.8 | 2 | 0 | MR |
| SW 3950 | Svalof Weibull | H | RR | | -3.2 | -1.4 | -2.6 | 108 | 111 | 101 | 108 | -2.2 | 1 | 0 | MR |
| SW 6802 | Svalof Weibull | S | RR | | -5.1 | -2.8 | | 103 | 105 | | 104 | -3.7 | -0 | -0 | MR |
| SW G5246 RR | Svalof Weibull | O | RR | | -1.2 | -0.7 | -1.6 | 108 | 108 | 112 | 109 | -1.0 | 1 | -0 | MR |
| **B. rapa compared to AC Sunbeam (from 2005 Canola table)** | | | | | | | | **7 ST.YR** | **3 ST.YR** | | | | | | |
| AC PARKLAND | AAFC | O | CO | | 2 | 4 | | 96 | 82 | | | 2 | 2 | 0 | n/a |
| AC SUNBEAM | AAFC | O | CO | | 0 | 0 | | 100 | 100 | | | 0 | 0 | 0 | n/a |
| ACS-C7 | AAFC | S | CO | | 2 | 2 | | 96 | 97 | | | 2 | 3 | 0 | n/a |
| SW SPIRIT RIVER | Peace Pedigreed Seed | O | CO | | 5 | 5 | | 97 | 73 | | | 5 | 2 | 0 | n/a |

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◆ Varietal Kind: H=Hybrid, S=Synthetic, O=Open Pollinated

◆ Herbicide: CO=Conventional, CF=Clearfield, LL=Liberty Link, RR=Roundup Ready

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3. The table includes information on maturity, resistance to lodging, blackleg resistance, varietal type (open-pollinated, hybrid, synthetic) and herbicide tolerance. Use this information in addition to yield to choose a variety.

**Argentine Canola**

Argentine varieties mature two weeks later than Polish varieties and are therefore better suited to the mid- and long-season growing areas of Saskatchewan. Blackleg disease, which is now widespread in Saskatchewan, can cause severe yield losses in varieties that are susceptible (S). Argentine varieties are susceptible to seed shattering when left standing at full maturity. Later maturing varieties tend to produce higher levels of green seed under wet and cool conditions at harvest, which can cause substantial grade reductions. The control of herbicide tolerant canola volunteers requires good agronomic practice such as proper crop and herbicide rotation.

**Polish Canola**

Polish varieties mature approximately two weeks earlier than Argentine varieties and are therefore less likely to produce green seed. Polish varieties are more heat and drought tolerant than Argentine varieties. They are also more shatter resistant than Argentine varieties and are therefore well suited to straight combining.

***Brassica juncea* Canola**

*Brassica juncea* canola is a new class of canola that is adapted to the brown and dark brown soil zones. It has very good resistance to blackleg and exhibits better heat and drought tolerance than other canolas. Juncea canola has shattering resistance similar to Polish canola, and is therefore well suited to straight combining. All production is contracted. The first two varieties, Arid and Amulet, yield approximately 112% of AC Excel (Argentine) in their zone of adaptation. The variety Dahinda yields about 103% of Arid and Amulet. A new variety, Estlin, has excellent lodging resistance and yields 105% of Arid and Amulet. Limited seed will be available in 2006.

**The Canola POD**

The Canola POD; or Performance On-line Database (http://www.canola-council.org/pod), was developed by the Canola Council of Canada to allow farmers to explore canola performance trial results from a broad range of sources in their own area. In addition to the Prairie Canola Variety Trial results, POD provides access to private seed company performance trial information which often includes more detailed information, such as notes on site management.

# Breeding Institutions and Seed Distributors of Varieties Listed in this Publication

| Crop Kind, Class & Variety | Breeding Institution | Distributor |
|---|---|---|
| **Wheat** | | |
| **Bread Wheat** | | |
| 5500HR | Agripro / Agricore United | Proven Seed |
| 5600HR | Agripro / Agricore United | Proven Seed |
| 5601HR | Agripro / Agricore United | Proven Seed |
| 5602HR | Agripro / Agricore United | Proven Seed |
| AC Abbey | AAFC (Swift Current) | Canterra Seeds |
| AC Barrie | AAFC (Swift Current) | SeCan Members |
| CDC Bounty | U of S - CDC | Canterra Seeds |
| AC Cadillac | AAFC (Swift Current) | FarmPure Seeds |
| AC Cora | AAFC (Winnipeg) | SeCan Members |
| AC Domain | AAFC (Winnipeg) | SeCan Members |
| AC Eatonia | AAFC (Swift Current) | Willms Seeds (AB) |
| AC Elsa | AAFC (Swift Current) | SeCan Members |
| CDC Go | U of S - CDC | Public |
| CDC Imagine | U of S - CDC | Sask. Wheat Pool Inc |
| CDC Alsask | U of S - CDC | Sask. Wheat Pool Inc |
| Infinity | AAFC (Swift Current) | Canterra Seeds |
| AC Intrepid | AAFC (Swift Current) | Canterra Seeds |
| Harvest | AAFC (Winnipeg) | FarmPure Seeds |
| Journey | Sask. Wheat Pool Inc. | Sask. Wheat Pool Inc |
| Katepwa | AAFC (Winnipeg) | SeCan Members |
| Laura | AAFC (Swift Current) | SeCan Members |
| Lillian | AAFC (Swift Current) | SeCan Members |
| Lovitt | AAFC (Swift Current) | Canterra Seeds |
| McKenzie | Sask. Wheat Pool Inc. | Sask. Wheat Pool Inc<br>Proven Seed |
| CDC Osler | U of S - CDC | Public |
| Peace | AAFC (Winnipeg) | Canterra Seeds |
| Prodigy | Sask. Wheat Pool Inc. | Sask. Wheat Pool Inc<br>Proven Seed |
| Somerset | AAFC (Winnipeg) | SeCan Members |
| AC Splendor | AAFC (Winnipeg) | SeCan Members |
| Superb | AAFC (Winnipeg) | SeCan Members |
| CDC Teal | U of S - CDC | FarmPure Seeds |
| **Canada Prairie Spring Wheat** | | |
| 5700PR | Agripro / Agricore United | Proven Seed |
| 5701PR | Agripro / Agricore United | Proven Seed |
| AC Crystal | AAFC (Swift Current) | SeCan Members |
| AC Foremost | AAFC (Swift Current) | SeCan Members |
| AC Karma | AAFC (Swift Current) | SeCan Members |
| AC Taber | AAFC (Swift Current) | SeCan Members |
| AC Vista | AAFC (Swift Current) | FarmPure Seeds |
| **Canada Western Extra Strong** | | |
| Amazon | University of Manitoba | Canterra Seeds |
| Burnside | AAFC (Winnipeg) | Faurschou Farms Ltd. |
| AC Corinne | AAFC (Winnipeg) | FarmPure Seeds |
| AC Glenavon | AAFC (Winnipeg) | SeCan Members |
| Glenlea | University of Manitoba | Public |
| CDC Rama | U of S - CDC | FarmPure Seeds |
| CDC Walrus | U of S - CDC | Public |
| **Hard White Spring Wheat** | | |
| Kanata | AAFC (Winnipeg) | FarmPure Seeds |
| Snowbird | AAFC (Winnipeg) | FarmPure Seeds |
| **Durum** | | |
| AC Avonlea | AAFC (Swift Current) | FarmPure Seeds |
| Commander | AAFC (Swift Current) | Sask. Wheat Pool Inc. |
| Kyle | AAFC (Swift Current) | SeCan Members |
| AC Morse | AAFC (Winnipeg) | SeCan Members |
| AC Napoleon | AAFC (Winnipeg) | Canterra Seeds |
| AC Navigator | AAFC (Swift Current) | Sask. Wheat Pool Inc. |
| Strongfield | AAFC (Swift Current) | SeCan Members |
| **Soft White Spring Wheat** | | |
| AC Andrew | AAFC (Lethbridge) | SeCan Members |
| Bhishaj | AAFC (Lethbridge) | Tony Crooymans |
| AC Nanda | AFFC ( Lethbridge) | FarmPure Seeds |
| AC Phil | AAFC (Lethbridge) | SeCan Members |
| AC Reed | AAFC (Lethbridge) | SeCan Members |
| **Winter Wheat** | | |
| AC Bellatrix | AAFC (Lethbridge) | FarmPure Seeds |
| CDC Buteo | U of S - CDC | SeCan Members |
| CDC Clair | U of S - CDC | SeCan Members |
| CDC Falcon | U of S - CDC | SeCan Members |
| CDC Harrier | U of S - CDC | SeCan Members |
| CDC Kestrel | U of S - CDC | Canterra Seeds |
| CDC Osprey | U of S - CDC | Canterra Seeds |
| CDC Raptor | U of S - CDC | SeCan Members |
| McClintock | U of M (Winnipeg) | Canterra Seeds |
| Radiant | AAFC (Lethbridge) | Canterra Seeds |
| **Winter Rye** | | |
| Prima | AAFC (Swift Current) | SeCan Members |
| AC Remington | AAFC (Swift Current) | Proven Seed |
| AC Rifle | AAFC (Swift Current) | Proven Seed / Canterra |
| RT193 | AAFC (Swift Current) | SeCan Members |
| **Triticale** | | |
| AC Alta | AAFC (Swift Current) | Progressive Seeds |
| AC Ultima | AAFC (Swift Current) | FarmPure Seeds |
| AC Certa | AAFC (Swift Current) | Progressive Seeds |
| AC Copia | AAFC (Swift Current) | FarmPure Seeds |
| Bobcat | AAFRD (Lacombe) | Progressive Seeds |
| Pika | AAFRD (Lacombe) | Progressive Seeds |
| Pronghorn | AAFRD (Lacombe) | Progressive Seeds |
| Sandro | Swiss Fed Ag Res | SW Seed Canada Ltd |
| **Malting Barley** | | |
| **Two-Row** | | |
| AC Bountiful | AAFC (Brandon) | FarmPure Seeds |
| Calder | AAFC (Brandon) | SeCan Members |
| CDC Copeland | U of S - CDC | SeCan Members |
| Harrington | U of S - CDC | SeCan Members |
| CDC Kendall | U of S - CDC | Sask. Wheat Pool Inc.<br>Agricore United |
| Merit | Bush Ag Res. Inc. | Sask. Wheat Pool Inc.<br>Agricore United<br>FarmPure Seeds |
| AC Metcalfe | AAFC (Brandon) | SeCan Members |
| Newdale | AAFC (Brandon) | FarmPure Seeds |
| CDC Select | U of S - CDC | Agricore United |
| Stein | U of S - CDC | Proven Seed |
| CDC Stratus | U of S - CDC | FarmPure Seeds |
| **Six-Row** | | |
| B1602 | Bush Ag Res. Inc. | Sask. Wheat Pool Inc. |
| CDC Battleford | U of S - CDC | SeCan Members |
| CDC Clyde | U of S - CDC | Agricore United / Proven Seed |
| Excel | U of Minnesota | |
| Legacy | Bush Ag Res. Inc. | Sask. Wheat Pool Inc.<br>Agricore United<br>FarmPure Seeds |
| Robust | U of Minnesota | Cargill Seed, Others |
| CDC Sisler | U of S - CDC | Proven Seed |
| CDC Springside | U of S - CDC | Proven Seed |
| CDC Tisdale | U of S - CDC | FarmPure Seeds |
| Tradition | Bush Ag Res. Inc. | Sask. Wheat Pool Inc.<br>Agricore United<br>FarmPure Seeds |
| CDC Yorkton | U of S - CDC | Canterra Seeds Ltd. |
| CDC Laurence | U of S - CDC | |

# Breeding Institutions and Seed Distributors of Varieties Listed in this Publication

| Crop Kind, Class & Variety | Breeding Institution | Distributor |
|---|---|---|
| **Feed Barley** | | |
| **Feed** | | |
| CDC Bold | U of S - CDC | Canterra Seeds Ltd. |
| Conlon | North Dakota State University | Seed Depot Corp. |
| CDC Cowboy | U of S - CDC | SeCan Members |
| CDC Dolly | U of S - CDC | SeCan Members |
| CDC Earl | U of S - CDC | SeCan Members |
| CDC Fleet | U of S - CDC | FarmPure Seeds |
| AC Harper | AAFC (Lethbridge) | SeCan Members |
| CDC Helgason | U of S - CDC | SeCan Members |
| Kasota | AAFRD (Lacombe) | SeCan Members |
| Lacey | U of Minnesota | SW Newfield Seeds |
| AC Lacombe | AAFC (Lacombe) | SeCan Members |
| Mahigan | AAFRD (Lacombe) | SeCan Members |
| Manny | AAFRD (Lacombe) | SeCan Members |
| McLeod | Westbred, LLC | Agricore United<br>Sask. Wheat Pool Inc. |
| Niobe | AAFRD (Lacombe) | SeCan Members |
| Niska | AAFRD (Lacombe) | Canterra Seeds Ltd. |
| Ponoka | AAFRD (Lacombe) | SeCan Members |
| AC Rosser | AAFC (Brandon) | SeCan Members |
| Rivers | AAFC (Brandon) | Canterra Seeds Ltd. |
| CDC Trey | U of S - CDC | FarmPure Seeds |
| Trochu | AAFRD (Lacombe) | SeCan Members |
| Vivar | AAFRD (Lacombe) | SeCan Members |
| Xena | Agricore / W. Plant Breeders<br>Sask. Wheat Pool Inc. | Agricore United |
| **Hulless** | | |
| AC Bacon | AAFC (Brandon) | SeCan Members |
| CDC Freedom | U of S - CDC | SeCan Members |
| CDC Gainer | U of S - CDC | FarmPure Seeds |
| HB 805 | W. Plant Breeders | Agricore United |
| CDC McGwire | U of S - CDC | SeCan Members |
| Peregrine | AAFRD (Lacombe) | Progressive Seeds Ltd. |
| **Forage** | | |
| CDC Cowboy | U of S - CDC | SeCan Members |
| Dillon | W. Plant Breeders | Agricore United |
| AC Ranger | AAFC (Brandon) | FarmPure Seeds |
| Westford | W. Plant Breeders | Agricore United<br>Sask. Wheat Pool Inc. |
| **Food Barley** | | |
| CDC Alamo | U of S - CDC | Agricore United |
| CDC Candle | U of S - CDC | Agricore United |
| CDC Fibar | U of S - CDC | Agricore United |
| HB603 | W. Plant Breeders | Agricore United |
| Merlin | W. Plant Breeders | Agricore United |
| CDC Rattan | U of S - CDC | Agricore United |
| **Oats** | | |
| AC Assiniboia | AAFC (Winnipeg) | Proven Seed |
| SW Betania | SW Seed Ltd. | Agricore United |
| AC Morgan | AAFC (Lacombe) | SeCan Members |
| Murphy | AAFC (Lacombe) | SeCan Members |
| Boudrias | AAFC (Lacombe) | FarmPure Seeds |
| Bullion | SW Seed Ltd. | Agricore United |
| Calibre | U of S - CDC | SeCan Members |
| CDC Baler | U of S - CDC | FarmPure Seeds |
| CDC Bell | U of S - CDC | Sask. Wheat Pool Inc. |
| CDC Boyer | U of S - CDC | SeCan Members |
| CDC Dancer | U of S - CDC | FarmPure Seeds / Cargill |
| CDC Orrin | U of S - CDC | FarmPure Seeds |
| CDC Pacer | U of S - CDC | FarmPure Seeds |
| CDC Sol-Fi | U of S - CDC | Agricore United |
| CDC Weaver | U of S - CDC | FarmPure Seeds |
| Derby | U of S - CDC | Proven Seed |
| Furlong | AAFC (Winnipeg) | Canterra Seeds / Cargill |
| AC Gwen | AAFC (Winnipeg) | SeCan Members |
| Kaufmann | AAFC (Lacombe) | SeCan Members |
| Lee Williams | AAFC (Lacombe) | Canterra Seeds |
| Leggett | AAFC (Winnipeg) | FarmPure Seeds |

| Crop Kind, Class & Variety | Breeding Institution | Distributor |
|---|---|---|
| **Oats (cont'd)** | | |
| Lu | AAFC (Lacombe) | SeCan Members |
| Pinnacle | AAFC (Winnipeg) | FarmPure Seeds |
| Ronald | AAFC (Winnipeg) | SeCan Members |
| Triple Crown | SW Seed Ltd. | SW Seed Canada Ltd |
| **Canary Seed** | | |
| Cantate | | |
| Elias | U of Minnesota; U of S - CDC | Public |
| Keet | U of Minnesota; U of S - CDC | Public |
| CDC Maria | U of S - CDC | C. Special Crops |
| CDC Togo | U of S - CDC | Canterra Seeds |
| **Safflower** | | |
| Saffire | AAFC (Lethbridge) | Jerry Kubic (AB) |
| AC Sunset | AAFC (Lethbridge) | Proven Seed |
| **Lentil** | | |
| CDC Blaze | U of S - CDC | Sask. Pulse Growers |
| Crimson | USDA / Washington State U | Public |
| Eston | U of S - CDC | SeCan Members |
| CDC Glamis | U of S - CDC | Sask. Pulse Growers |
| CDC Grandora | U of S - CDC | Sask. Pulse Growers |
| Laird | U of S - CDC | SeCan Members |
| CDC LeMay | U of S - CDC | Sask. Pulse Growers |
| CDC Meteor | U of S - CDC | Sask. Pulse Growers |
| CDC Milestone | U of S - CDC | Sask. Pulse Growers |
| CDC Plato | U of S - CDC | Sask. Pulse Growers |
| CDC Redberry | U of S - CDC | Sask. Pulse Growers |
| CDC Redcap | U of S - CDC | Sask. Pulse Growers |
| CDC Richlea | U of S - CDC | SeCan Members |
| CDC Robin | U of S - CDC | Sask. Pulse Growers |
| CDC Rosetown | U of S - CDC | Sask. Pulse Growers |
| CDC Rouleau | U of S - CDC | Sask. Pulse Growers |
| CDC Sedley | U of S - CDC | Sask. Pulse Growers |
| CDC Sovereign | U of S - CDC | Sask. Pulse Growers |
| CDC Vantage | U of S - CDC | Sask. Pulse Growers |
| CDC Viceroy | U of S - CDC | Sask. Pulse Growers |
| **Field Pea** | | |
| 40-10 | SWS, Germany | FarmPure Seeds Inc. |
| CDC Acer | U of S – CDC | Sask. Pulse Growers |
| DSAdmiral | Danisco Seeds | FarmPure Seeds Inc. |
| Alfetta | Cebeco Zaden | FarmPure Seeds Inc. |
| Bluebird | Cebeco Zaden | Bob Park - Lacombe, AB |
| CDC Bronco | U of S – CDC | Sask. Pulse Growers |
| CDC Golden | U of S – CDC | Sask. Pulse Growers |
| Camry | Cebeco Zaden | FarmPure Seeds Inc. |
| SW Capri | SW Seed Ltd. | Canterra Seeds |
| Carneval | SW Seed Ltd. | Sask. Wheat Pool Inc. |
| SW Circus | SW Seed Ltd. | Secan Members |
| Cruiser | NZ Crop & Food | Canterra Seeds |
| Cutlass | AAFRD / CDC | Sask. Pulse Growers |
| Courier | NZ Crop & Food | Canterra Seeds |
| Delta | Cebeco Zaden | FarmPure Seeds Inc. |
| Eclipse | Cebeco Zaden | FarmPure Seeds Inc. |
| CDC HANDEL | U of S - CDC | Sask. Pulse Growers |
| Madoc | Terramax | |
| MAJORET | SW Seed Ltd. | SW Seed Ltd. |
| SW Marquee | SW Seed Ltd. | Sask. Wheat Pool Inc. |
| SW Midas | SW Seed Ltd. | FarmPure Seeds Inc. |
| Millenium | Mansholt | Terramax |
| Miser | AAFC | FarmPure Seeds Inc. |
| CDC Minuet | U of S - CDC | Sask. Pulse Growers |
| CDC Montero | U of S - CDC | Sask. Pulse Growers |
| CDC MOZART | U of S - CDC | Sask. Pulse Growers |
| Nessie | SW Seed Ltd. | FarmPure Seeds Inc. |
| NITOUCHE | DLF Trifolium (Denmark) | FarmPure Seeds Inc. |
| CDC Sage | U of S - CDC | Sask. Pulse Growers |
| SW Carousel | SW Seed Ltd. | SW Seed Ltd. |
| SW Parade | SW Seed Ltd. | Sask. Wheat Pool Inc. |

# Breeding Institutions and Seed Distributors of Varieties Listed in this Publication

| Crop Kind, Class & Variety | Breeding Institution | Distributor |
|---|---|---|
| **Field Pea (cont'd)** | | |
| SW Prize | SW Seed Ltd. | Nodricks Norsask Ltd. |
| SW Salute ♣ | SW Seed Ltd. | SW Seed Ltd. |
| Cooper | Cebeco Zaden | Canterra Seeds |
| Scuba ♣ | Advanta Seeds | FarmPure Seeds Inc. |
| CDC Sonata | U of S - CDC | Sask. Pulse Growers |
| DS Stalwarth | Danisco Seeds | Secan Members |
| CDC Striker | U of S – CDC | Sask. Pulse Growers |
| Stratus ♣ | Cebeco Zaden | Canterra Seeds |
| SWING ♣ | Cebeco Zaden | FarmPure Seeds Inc. |
| TOLEDO | Cebeco Zaden | Canterra Seeds |
| Topeka ♣ | Cebeco Zaden | Canterra Seeds |
| Trapper | AAFC (Morden) | Public |
| Tudor | Cebeco Zaden | FarmPure Seeds Inc. |
| Venture | Axel Toft | Johnson Seeds (MB) |
| Victoria | SW Seed Ltd. | SW Seed Canada Ltd. |
| Vortex | Globe Seeds (Netherlands) | Terramax |
| Whero | Challenge Seeds | SW Seed Ltd. |
| **Chickpea** | | |
| **Desi** | | |
| CDC Anna | U of S - CDC | Sask. Pulse Growers |
| CDC Cabri | U of S - CDC | Sask. Pulse Growers |
| CDC Desiray | U of S - CDC | Sask. Pulse Growers |
| Myles | USDA / Washington State U | Public |
| CDC Nika | U of S - CDC | Sask. Pulse Growers |
| **Kabuli** | | |
| Amit (B-90) ♣ | | Proven Seed |
| CDC Chico | U of S - CDC | Sask. Pulse Growers |
| CDC ChiChi | U of S - CDC | Sask. Pulse Growers |
| CDC Diva | U of S - CDC | Sask. Pulse Growers |
| Dwelley | USDA / Washington State U | Public |
| Evans | USDA / Washington State U | Public |
| CDC Frontier | U of S - CDC | Sask. Pulse Growers |
| Sanford | USDA / Washington State U | Public |
| CDC Xena | U of S - CDC | Sask. Pulse Growers |
| CDC Yuma | U of S - CDC | Sask. Pulse Growers |
| **Dry Bean** | | |
| AC Polaris | | |
| AC Redbond | | |
| CDC Camino | U of S - CDC | Sask. Pulse Growers |
| Envoy | | |
| Othello | USDA / ARS (Prosser, WA) | Public |
| US 1140 | USDA | Public |
| CDC Expresso | U of S - CDC | Canterra Seeds |
| CDC Jet | U of S - CDC | B&J Martens Seeds |
| CDC Minto | U of S - CDC | Canterra Seeds |
| CDC Nighthawk | U of S - CDC | FarmPure Seeds |
| CDC Pintium | U of S - CDC | Sask. Pulse Growers |
| CDC Polar Bear | U of S - CDC | Canterra Seeds |
| Viva | Public | |
| CDC Whitecap | U of S - CDC | Canterra Seeds |
| CDC Pinnacle | U of S - CDC | Sask. Pulse Growers |
| Cruiser | | |
| AC Black Diamond | | |
| **Faba Bean** | | |
| Aladin | University of Manitoba | Public |
| CDC Blitz | U of S - CDC | |
| Cresta | Saatbau Linz | Canterra Seeds<br>Agriprogress Inc. |
| CDC Fatima | U of S - CDC | R.Legumex / Walker S. |
| Orion | AAFC (Lacombe) | Roger Lee, Lyster Farm |
| Outlook | U of S - CDC | SeCan Members |
| Scirocco | NPZ-Lembke | Agriprogress Inc. |
| **Flax** | | |
| CDC Arras | U of S - CDC | FarmPure Seeds |
| CDC Bethune ♣ | U of S - CDC | SeCan Members |
| AC Carnduff | AAFC (Morden) | SeCan Members |

| Crop Kind, Class & Variety | Breeding Institution | Distributor |
|---|---|---|
| **Flax (cont'd)** | | |
| Flanders | U of S - CDC | SeCan Members |
| Hanley ♣ | AAFC (Morden) | SeCan Members |
| Lightning ♣ | AAFC (Morden) | Canterra Seeds |
| Macbeth ♣ | AAFC (Morden) | Proven Seed |
| CDC Mons | U of S - CDC | FarmPure Seeds |
| CDC Normandy | U of S - CDC | SeCan Members |
| Prairie Blue ♣ | AAFC (Morden) | SeCan Members |
| CDC Sorrel | U of S - CDC | SeCan Members |
| Taurus ♣ | Cebeco Zaden | FarmPure Seeds |
| CDC Valour | U of S - CDC | SeCan Members |
| Vimy | U of S - CDC | SeCan Members |
| AC Watson ♣ | AAFC (Morden) | Sask. Wheat Pool Inc. |
| CDC Gold | U of S - CDC | Sask. Wheat Pool Inc. |
| 2047 ♣ | CSIRO / UGG | Proven Seed |
| 2090 | CSIRO / UGG | Proven Seed |
| 2149 | CSIRO / UGG | Proven Seed |
| **Mustard** | | |
| **Brown** | | |
| commercial | | Trade |
| Duchess | Proven Seed | Proven Seed |
| **Oriental** | | |
| Cutlass | AAFC (Saskatoon) | Trade |
| Forge | Colman's of Norwich | Sask. Wheat Pool Inc. |
| AC Vulcan | AAFC (Saskatoon) | Trade |
| **Yellow** | | |
| AC Base | AAFC (Saskatoon) | Trade |
| AC Pennant | AAFC (Saskatoon) | Trade |
| Ace | John S. Hemingway | Proven Seed |
| Andante | | Trade |
| Tilney | Colman's of Norwich | Proven Seed |
| Viscount | Colman's of Norwich / UGG | Proven Seed |
| **Sunflower** | | |
| 63A21 | Pioneer Hi-Bred | Pioneer Hi-Bred |
| 63A70 | Pioneer Hi-Bred | Pioneer Hi-Bred |
| 63M02 | Pioneer Hi-Bred | Pioneer Hi-Bred |

**Canola** - see Canola table VR20

**Abbreviations used in this list**

| | |
|---|---|
| AC | Prefix to variety names Agriculture Canada (Agriculture and Agri-Food Canada) |
| AAFC | Agriculture and Agri-Food Canada |
| CDC | Crop Development Centre |
| AAFRD | Alberta Agriculture Food and Rural Development, Lacombe, Alta. |
| U | University |
| U of S | University of Saskatchewan |
| USDA | United States Department of Agriculture |